

# Curriculum Vitae

## Isabella Velicogna

**Position** Professor  
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### EDUCATION

University of Trieste, Italy	Physics	B.S., 1995
University of Trieste, Italy	Physics	M.S., 1995
University of Trieste, Italy	Engineering (Geodynamics)	Ph.D., 1999
University of Colorado, Boulder	Physics (Geodesy/Geophysics)	Postdoc, 1999-2001

### EMPLOYMENT

2016-Present	Full Professor, Department of Earth System Science, University of California Irvine, Irvine, CA.
2018-Present	Associate Dean of Graduate Studies, Equity and Inclusion, School of Physical Sciences, University of California Irvine, Irvine, CA.
2016-2018	Equity Advisor, School of Physical Sciences, University of California Irvine, Irvine, CA.
2012-2016	Associate Professor, Department of Earth System Science, University of California Irvine, Irvine, CA.
2007-2012	Assistant Professor, Department of Earth System Science, University of California Irvine, Irvine, CA.
2018-Present	Visiting Scientist, Dipartimento Politecnico di Ingegneria e Architettura Università degli Studi di Udine, Udine, Italy.
2007-Present	Scientist Faculty Part Time, Division 32, NASA's Jet Propulsion Laboratory, Pasadena, CA.
2006-2007	Senior Scientist, Division 32, NASA's Jet Propulsion Laboratory, Pasadena, CA
2006-2007	Research Scientist III, Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder, CO
2004-2006	Research Scientist II, Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder, CO
2001-2004	Research Scientist I, Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder, CO

### AWARDS AND RECOGNITIONS

2018	Thomson Reuters Highly Cited Researchers in Geosciences (Researchers ranking among the top 1% most cited for their subject field).
2017	European Geosciences Union's Vening Meinesz Medal for distinguished research in Geodesy. The medal honor scientists who have achieved exceptional international standing in geodesy.
2016	Chancellor's Fellow, University of California Irvine.
2016	Thomson Reuters Highly Cited Researchers in Geosciences (Researchers

- ranking among the top 1% most cited for their subject field.
- 2015 Thomson Reuters Highly Cited Researchers in Geosciences (Researchers ranking among the top 1% most cited for their subject field).
- 2015 Kavli Fellow of the U.S. National Academy of Science.
- 2015 UCI School of Physical Sciences award for Excellence in Undergraduate Education.
- 2013 NASA Group Achievement Award, Ice Mass Balance Intercomparison Exercise Team (IMBIE).
- 2008 Kavli Fellow of the U.S. National Academy of Science.
- 2006 NASA Award for Outstanding Scientific Achievement.
- 2008 OC Metro Annual Awards for 40 under 40. This award is given to Orange County's brightest professionals who have achieved a level of success that takes some people a lifetime but are still under 40 years of age.

## **RESEARCH INTERESTS**

Employ novel geophysical methods and satellite remote sensing techniques to understand the physical processes governing ice sheet and high mountain glacier mass balance, and the hydrologic cycle of high latitude regions, with an emphasis on time-variable gravity from the Gravity Recovery and Climate Experiment (GRACE) missions and other geophysical data (satellite altimetry, GPS, climate model outputs, in situ observations).

Study the impact of melting ice sheets and glaciers and ice caps on global and regional patterns of sea level rise using geophysical numerical methods.

Study ecosystem response to climate change and variability in terrestrial water storage combining multiple remote sensing techniques and climate model outputs.

## **PUBLICATIONS**

Thomson Reuters-Web of Science (WS) Researcher ID: R-5561-2018. Google Scholar (GS) h-index 32, WS h-index 29,

Citations per paper: 150 (GS), 100(WS); 20 papers cited 100+ times; 11 cited 300+ times; 62 publications; 10,109 citations (GS), 6,454 citations (WS); citations/year since 2013: 1,110 (GS), 780 (WS).

(Underlined authors are Students, Post-Doctoral Fellows and Researchers under my supervised)

### **Papers in preparation**

- He Z., Velicogna I., Ciraci E., Hsu C., Rignot E., Mouginot J. '40 year of Sea Level Fingerprint of Ice Sheets and Glaciers/or of the land ice'.

### **Papers under submission**

- Kishore P., Velicogna, I., Bromwich D., M. van den Broeke, 'Spectral analysis on Antarctic precipitation from global reanalysis', Under submission to *J. Clim.* 2019.
- Hsu C., I. Velicogna, E. Rignot , J. Wahr, M. van den Broeke,'Sensitivity of sea level fingerprint to spatial pattern of ice sheet mass changes', Under submission to *Environ Res. Lett.* 2019
- Ginoux P., S. Malyshev, E. Shevliakova, H. G. Chan, H. Guo, C. Milly, V. Naik, S. Pascale, F. Paulot, B. Pu, M. Zhao, A G., E.Ciraci', I.Velicogna, S. Kapnick, 'Distribution of absorbing aerosols in snow over high mountain ranges in GFDL AM4/LM4, Submitted to *JAMES*, 2019.
- Velicogna I., Ciraci' E., A G., Kapnick S., Ginoux P., "Partitioning the High Mountaing Asia water Budget Using GRACE and GCM", submitted *GRL* 2019.

- Ciraci E, Velicogna I., A G., “Upper Indus contribution to the lower Indus runoff”, under submission *ERL* 2019.
- Hsu C., **I. Velicogna**, E. Rignot , J. Wahr, M. van den Broeke, 'Sensitivity of sea level fingerprint to spatial pattern of ice sheet mass changes', Under submission to *Environ Res. Lett.*, 2019
- Zhao M., A G., Velicogna I., 'Interactive effect of land water supply and atmospheric demand on natural vegetation productivity', Under Submission *Nature Geosciences*, 2019

### **Papers in Peer-Review**

- Ciraci E., **Velicogna I.**, Swenson S., 'Mass balance of glaciers and ice caps from GRACE', in review *EPSL*, 2019.
- A G., **Velicogna I.**, Kimball J., M. Zhao, Du J., Kim Y.; Colliander A., Njoku E., 'Characterizing the seasonal timing and availability of water supply in relation to vegetation growth in the Missouri watershed using GRACE water storage, satellite precipitation and soil moisture measurements', in review *Rem. Sens. Environ.*, 2019.
- Sutterley T., **Velicogna I.**, Hsu C., 'Self-Consistent Ice Mass Balance and Regional Sea Level from Time-Variable Gravity', in review *EPSL*, 2019.
- Madani N., Kimball J, Parazoo N., Jones L., **Velicogna I.**, Ballantyne A.P., Bloom A.A., Saatchi S., Liu Z., Tagesson T., Palmer P., 'Soil water moderates the productivity response of Africa to drought', In review *Nature Geoscience* 2019.
- Du J., Kimball J.S., **Velicogna I.**, Zhao M., Jones L.A., Watts J.D., Kim Y., A G., 'Multi-component satellite assessment of drought severity in the Contiguous United States from 2002 to 2017 using AMSR-E and AMSR2', In review *Water Resources Research*, 2019
- De Conto R., Pollard D., Alley R.B., Velicogna I., Gasson E. 'The Paris Climate Agreement and future sea-level rise from Antarctica' in review *Nature Climate Change*, 2019.

### **Peer-Reviewed Journal Articles**

- PJ72- 2019 – Tapley B., Watkins M., Flechtner F., Reigber C., Bettadpur S., Rodell M., Sasgen I., Famiglietti F., Landerer F., Chambers D., Reager J., Gardner A., Save H., Ivins E., Swenson S., Boening C., Dahle C., Wiese D., Dobslaw H., Tamisiea M., Velicogna I., 'Contributions of GRACE to understanding climate change'. *Nature Climate Change*, 9, 358–369 (2019), DOI: 10.1038/s41558-019-0456-2
- PJ71– 2019 – Basha G., MV Ratnam, KN Kumar, T Ouarda, P Kishore, **I Velicogna**, 'Long-term variation of dust episodes over the United Arab Emirates'. *Journal of Atmospheric and Solar-Terrestrial Physics*.187( 2019), 33-39.
- PJ70– 2019 – Pangaluru K., **I Velicogna**, Y Mohajerani, E Ciraci, S Cpepa, G Basha, S. Rao, 'Soil Moisture Variability in India: Relationship of Land Surface–Atmosphere Fields Using Maximum Covariance Analysis' *Remote Sensing* 11 (3), 335, 2019.
- PJ69– 2019 – Mohajerani Y., Wood M., **Velicogna I.**, Rignot E., 'Detection of Glacier Calving Margins with Convolutional Neural Networks: A Case Study'. *Remote Sens.* 2019, 11, 5; doi:10.3390/rs11010005.
- PJ68– 2018 – Ciraci E., **Velicogna I.**, Sutterley T., 'Mass Balance of Novaya Zemlya Archipelago, Russian High Arctic, Using Time-Variable Gravity from GRACE and Altimetry Data from ICESat and CryoSat-2'. *Rem. Sens.*, doi: 10.20944/preprints201810.0056.v1, 2018.
- PJ67– 2018 – Cazenave et al., 'Global Sea Level Budget 1993–Present', *Earth Syst. Sci. Data Discuss.* <http://doi.org/10.5194/essd-10-1551-2018>.
- PJ66– 2018 – Sutterley T., **Velicogna I.**, Fettweis X., Rignot E., Noel B., van den Broeke M., 'Evaluating regional atmospheric climate models in the ablation zone of the Greenland Ice Sheet using satellite and airborne laser altimetry data', *Geophys. Res. Lett.*, 45(16), 8324-8333, 2018.

- PJ65– 2018 – Mohajerani Y., Velicogna I., Rignot E., ‘Mass loss of Totten and Moscow University glaciers, East Antarctica, using regionally-optimized GRACE mascons’, *Geophys. Res. Lett.*, 45(14), 7010-7018, 2018.
- PJ64– 2018 – Kishore P., Velicogna I., Sutterley T., Mohajerani Y., Ciraci’ E., G. N. Madhavi, ‘A case study of mesospheric planetary waves observed over a three-radar network using Empirical Mode Decomposition’, *Annales Geophysicae*, 36 (3), 925 -936, 2018
- PJ63– 2018 – Basha G, Kishore P., Venkat Ratnam M., Ravindrababu S., Velicogna I., Jiang JH, Ao CO, ‘Global Climatology of Planetary Boundary Layer top obtained from multi satellite GPS RO observations’, *Clim. Dyn.*, doi:10.1007/s00382-018-4269-1, 2018.
- PJ62– 2018 – Shepherd A, Ivins E, Rignot E, Smith B, van den Broeke M, Velicogna I., et al., ‘Mass balance of the Antarctic ice sheet from 1992 to 2017’, *Nature*, 558, 219-222, 2018.
- PJ61- 2017 -M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, K. Hansen , M. S. Khan , T. Mote, I. Sasgen, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, I. Velicogna, ‘Greenland Ice Sheet' in State of the Climate in 2016. *Bull. Amer. Meteor. Soc.*, 98 (8), S140-S153. DOI: 10.1175/2017BAMSStateoftheClimate.1, 2017.
- PJ60- 2017 - Kishore P., Janapati J., Pay-Lian J., Velicogna I., Sutterley S., Ciraci’ E., Mohajerani Y. Balaji Kumar S., ‘Investigation of Kelvin wave periods during Hai-Tang typhoon using Empirical Mode Decomposition’. *J. Atm. Solar Terrestrial Phys.* doi: 10.1016/j.jastp.2017.07.025, 2017.
- PJ59- 2017 - Hsu C., I. Velicogna, “Detection of sea level fingerprints derived from GRACE gravity data”, *Geophys. Res. Lett.*, DOI:10.1002/2017GL074070
- PJ58- 2017 - Bhanja S., A. Mukherjee, M. Rodell, Y. Wada, S. Chattopadhyay, I. Velicogna, K. Pangaluru, J. Famiglietti, ” Groundwater rejuvenation in parts of India influenced by water-policy change”, *Nature Scientific Reports*, Scientific Reports (7), 7453, 2017
- PJ57-2017 - Basha S., Kishore P., Ratnam M., Jayaraman A., AghaKouchak A., Ouarda T., Velicogna I., ‘Historical and Projected Climate Change over India: Contribution of Natural and Anthropogenic Forcings”. *Nature Scientific Reports*, doi:10.1038/s41598-017-02130-3, 2017.
- PJ56- 2017 - A G., Velicogna I., Kimball J., Du J., Kim Y.; Colliander A., Njoku E., ‘Satellite-observed changes in vegetation sensitivities to surface soil moisture and total water storage variations since the 2011 Texas drought’, *Environ. Res. Lett.*, doi: 10.1088/1748-9326/aa6965, 2017.
- PJ55-2017 - Zhao M, A G., Velicogna I., Kimball J., ‘A global gridded dataset of GRACE drought severity index for 2002-2014’, *J. Hydrometeor.*, doi.org:10.1175/JHM-D-16-0182.1, 2017.
- PJ54-2017 - Zhao M, A G., Velicogna I., Kimball J., ‘Evaluation of a GRACE observation based terrestrial drought severity index in the Continental United States’, *J. Clim.*, doi:10.1175/JCLI-D-16-0458.1, 2017.
- PJ53-2016 – Bhanja S., Mukherjee A., Saha D, Velicogna I., Famiglietti J. ‘Validation of GRACE based groundwater storage change using in-situ groundwater level measurements in India’. *J. Hydrology*, 543, Part B, 729–738.
- PJ52-2016 - Khazendar A., E. Rignot, D. Schroeder<sup>1</sup>, Seroussi H., Schodlok M., Scheuchl B., Sutterley T. Velicogna I., Rapid submarine ice melting in the grounding zones of ice shelves in West Antarctica’, *Nature Comm.* 7 (2016): 13243.
- PJ51-2016 - M. Tedesco, J. E. Box, J. Cappelen, X. Fettweis, K. Hansen, T. Mote, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, I. Velicogna, and J. Wahr, ‘Greenland ice Sheet’ [in “State of the Climate in 2015”]. *Bull. Amer. Meteor. Soc.*, 97 (8), S140-S153.
- PJ50-2016 - Kishore P., I. Velicogna, M. Venkat Ratnam, Ghouse Basha, S. P. Namboothiri, J. H. Jiang, T. C Sutterley, G. N. Madhavi, S. V. B. Rao, ‘Sudden stratospheric warmings observed in the last decade by satellite measurements and reanalysis’, *Rem. Sens. Environ.*, 184, 263-275, 2016.

- PJ49-2016 - Rignot E, Fenty I, Xu Y, Cai C, **Velicogna I**, Cofaigh CÓ, Dowdeswell JA, Weinrebe W, Catania G, Duncan D "Bathymetry data reveal glaciers vulnerable to ice-ocean interaction in Uummannaq and Vaigat glacial fjords, west Greenland." *Geophys. Res. Lett.*, 43.6 2667-2674.
- PJ48-2016 - Kishore P., G Basha, MV Ratnam, **I Velicogna**, T Ouarda, DN Rao, 'Evaluating CMIP5 models using GPS radio occultation COSMIC temperature in UTLS region during 2006–2013: twenty-first century projection and trends', *Clim. Dyn.*, 1-18.
- PJ47-2016 - Lim LK, SD. Schubert, SMJ Nowicki, JN Lee, AM Molod, RI Cullather, B Zhao, **I. Velicogna**, 'Atmospheric summer teleconnections and Greenland ice mass variations in the last four decades', *Environ. Res. Lett.* 11 (2), 024002.
- PJ46-2016 - Hansen J., M Sato, P. Hearty, R. Ruedy, M. Kelley, V. Masson-Delmotte, G. Russell, G. Tselioudis, J. Cao, E. Rignot, **I. Velicogna**, E. Kandiano, K. von Schuckmann, P. Kharecha, Allegra N Legerande, M. Bauer, K. Lo, "Ice Melt, Sea Level Rise and Superstorms: Evidence from Paleoclimate Data, Climate Modeling, and Modern Observations that 2°C Global Warming is Highly Dangerous", *Atmos. Chem. Phys. Discuss.* 15 (14), 20059-20179.
- PJ45-2016 - Kishore P., S Jyothi, G Basha, SVB Rao, M Rajeevan, **I. Velicogna**, 'Precipitation climatology over India: validation with observations and reanalysis datasets and spatial trends'. *Climate Dyn.*, 46, 541-556.
- PJ44-2015 - G. A. Velicogna I., Kimball J., Youngwook K., 'Impact of changes in GRACE derived terrestrial water storage on vegetation growth in Eurasia', *Environ. Res. Lett.* 10 124024 doi:10.1088/1748-9326/10/12/124024.
- PJ43-2015 - Famiglietti J.S., A. Cazenave, A. Eicker, J.T. Reager, M. Rodell, **I. Velicogna**, 'Satellites Provide the 'Big Picture' for Global Hydrology' *Science* 349 (6249), 684.
- PJ42-2015 - Mayewski P.A., T. Bracegirdle, I. Goodwin, D. Schneider, N.A.N. Bertler, S. Birkel, A. Carleton, M.H. England, J-H. Kang, A. Khan, J. Russell, J. Turner and **I. Velicogna**, 'Potential for Southern Hemisphere climate surprises'. *J. Quaternary Sci.* 30 (5), 391-395.
- PJ41-2015 - Basha GN, P. Kishore, MV Ratnam, T Ouarda, **I. Velicogna**, T Sutterley, 'Vertical and latitudinal variation of the intertropical convergence zone derived using GPS radio occultation measurements'. *Rem. Sens. Environ.* 163, 262-269.
- PJ40-2015 - Madhavi, G. N., Kishore, P., Rao, S. V. B., **Velicogna, I.**, Basha, G., 'Two-day wave observations over the middle and high latitudes in the NH and SH using COSMIC GPSRO measurements'. *Advances in Space Res.*, doi:10.1016/j.asr.2014.09.032
- PJ39-2014 - Sutterley T.C., **Velicogna I.**, Flament T., Rignot E., van den Broeke M., Mouginot J., 'Mass loss of the Amundsen Sea Sector confirmed by four independent techniques'. *Geophys. Res. Lett.* 41, 8421-8428.
- PJ38-2014 - **Velicogna I.**, T.C. Sutterley, M. van den Broeke, 'Spatially varying ice mass acceleration of the polar ice sheets from GRACE'. *Geophys. Res. Lett.*, 41 (22), 8130-8137
- PJ37-2014 - Kim, Y., Kimball, J. S., Zhang, K., Didan, K., **Velicogna, I.**, & McDonald, K. C., 'Attribution of divergent northern vegetation growth responses to lengthening non-frozen seasons using satellite optical-NIR and microwave remote sensing. *Int. J. Rem. Sens.*, 35(10), 3700-3721.
- PJ36-2014 - Kishore P., **I. Velicogna**, 'Long-term Trends Observed in the Middle Atmosphere Temperatures Using Ground Based LIDARs and Satellite Borne Measurements'. *Annales Geophysicae*, 32 (3), 301-317
- PJ35-2014 - Lupascu M, J. M. Welker, U. Seibt, X. Xu, **I. Velicogna**, D. S. Lindsey, C. I. Czimczik 'Water availability regulates magnitude, seasonality and sources of ecosystem respiration from a polar semi-desert in NW Greenland'. *Biogeosci.*, 11 (16), 4289-4304.
- PJ34-2014 - Sutterley T.C., **Velicogna I.**, Csatho B., Broeke M., Evaluating Greenland glacial isostatic adjustment corrections using GRACE, altimetry, and surface mass balance data'. *Environ Res. Lett.*, 9 (1), 014004.

- PJ33-2013 - Abraham JP, M. Baringer, N.L. Bindoff, T. Boyer, L.J. Cheng, J.A. Church, J.L. Conroy, C.M. Domingues, J.T. Fasullo, J. Gilson, G. Goni, S.A. Good, J.M. Gorman, V. Gouretski, M. Ishii, G.C. Johnson, S. Kizu, J.M. Lyman, A.M. Macdonald, W.J. Minkowycz, S.E. Moffitt, M.D. Palmer, A.R. Piola, F. Reseghetti, K. Schuckmann, K.E. Trenberth, **I. Velicogna**, J. Willis, 'A review of global ocean temperature observations: implications for ocean heat content estimates and climate change'. *Rev. Geophys.*, doi: 10.1002/rog.20022.
- PJ32-2013 - Ratnam M., P. Kishore, **I. Velicogna**, 'Global distribution of pauses observed with satellite measurements'. *J. Earth Sys. Sci.*, doi: 10.1007/s12040-013-0278-y.
- PJ31-2013 - Madhavi G. N. , P. Kishore, S.V.B. Rao, **I. Velicogna**, V. Sivakumar, 'Climatology and comparison study of stratosphere and lower mesosphere temperatures using satellite and reanalysis data sets'. *Int. J. Current Res. and Rev.*, 5(5): 17-42.
- PJ30-2013 - **Velicogna I.** and J. Wahr, 'Time-variable gravity observations of ice sheet mass balance: precision and limitations of the GRACE satellite data'. Frontier Article Requested by the Chief Editor *Geophys. Res. Lett.*, doi:10.1002/grl.50527.
- PJ29-2013 - Yang C., **Velicogna I.**, Famiglietti J., Randerson J., 'Satellite observations of terrestrial water storage provide early warning information about drought and fire season severity in the Amazon', *J. Geophys. Res.*, doi: 10.1002/jgrg.20046.
- PJ28-2013 - Church J., White N.J., Konikow L.F., Domingues C.M., Cogley J.G., Rignot E., Gregory J., van den Broeke M., Monaghan A., **Velicogna I.**, Correction to "Revisiting the Earth's sea-level and energy budgets from 1961 to 2008" *Geophys. Res. Lett.*, 40 (15), 4066-4066. DOI:10.1002/grl.50752
- PJ27-2012 - Shepherd A., Ivins E., G. A. V. R. Barletta, M. J. Bentley, S. Bettadpur, K. H. Briggs, D. H. Bromwich, R. Forsberg, N. Galin, M. Horwath, S. Jacobs, I. Joughin, M. A. King, J. T. M. Lenaerts, J. Li, S. R. M. Ligtenberg, A. Luckman, S. B. Luthcke, M. McMillan, R. Meister, G. Milne, J. Mouginot, A. Muir, J.P. Nicolas, J. Paden, A. J. Payne, H. Pritchard, E. Rignot, H. Rott, L. Sandberg Sørensen, T. A. Scambos, B. Scheuchl, E. J. O. Schrama, B. Smith, A. V. Sundal, J. H. van Angelen, W. J. van de Berg, M. R. van den Broeke, David G. Vaughan, Velicogna, I. Wahr J., P. L. Whitehouse, D. J. Wingham, D. Yi, D. Young, and J. Zwally. 'A Reconciled Estimate of Ice-Sheet Mass Balance', *Science*, DOI: 10.1126/science.1228102.
- PJ26-2012 - Kishore P., **Velicogna, I.**, Ratnam MV, Jiang JH, Madhavi GN, 'Planetary waves in the upper stratosphere and lower mesosphere during 2009 Arctic major stratospheric warming', *Annales Geophysicae*, DOI: 10.5194/angeo-30-1529-2012.
- PJ25-2012 - **Velicogna I.**, Tong J., Zhang T., Kimball J., 'Increasing groundwater storage in discontinuous permafrost areas in the Lena river basin, Eurasia, detected from GRACE', *Geophys. Res. Lett.*, doi:10.1029/2012GL051623.
- PJ24-2012 - Sasgen I., van den Broeke M., Bamber J., Rignot E., Sandberg Sorensen L., Wouters B., Martinec Z., **Velicogna I.**, Simonse S., 'Timing and origin of recent regional ice mass loss in Greenland', *Earth Planet. Sci. Lett.*. 333–334, p 293–303.
- PJ23-2011 - Church J., White N.J., Konikow L.F., Domingues C.M., Cogley J.G., Rignot E., Gregory J., van den Broeke M., Monaghan A., **Velicogna I.**, 'Revisiting the Earth's sea-level and energy budgets from 1961 to 2008', *Geophys. Res. Lett.*, Vol. 38, L18601, doi:10.1029/2011GL048794.
- PJ22-2011 - Rignot E., **Velicogna I.**, van den Broeke, M., Monaghan A., Lenaerts J., 'Acceleration of the contribution of the Greenland and Antarctic ice sheets to sea level rise', *Geophys. Res. Lett.*, Vol. 38, L05503, doi:10.1029/2011GL046583.
- PJ21-2011 - Kishore P., Ratnam M.V., Namboothiri S.P., **Velicogna I.**, Basha G., Jiang J.H., Igarashi K., Rao S.V.B., Sivakumar V., Global (50°S–50°N) distribution of water vapor observed by COSMIC GPS RO: Comparison with GPS radiosonde, NCEP, ERA-Interim, and JRA-25

- reanalysis data sets', *J. of Atmos. Solar-Terrestrial Phys.*, Vol. 73, 1849-1060, doi:10.1016/j.jastp.2011.04.017.
- PJ20-2010 - **Tong J., Velicogna I.**, 'A Comparison of AMSR-E/Aqua Snow Products with in-situ Observations and MODIS Snow Cover Products in the Mackenzie River Basin, Canada', *Rem. Sens.*, 2(10), 2313-2322, doi:10.3390/rs2102313.
- PJ19-2010 - Khan S.A., Wahr J., Bevis B., **Velicogna I.**, Kendrick E., 'Spread of ice mass loss into northwest Greenland observed by GRACE and GPS', *Geophys. Res. Lett.*, Vol. 37, L06501, doi:10.1029/2010GL042460.
- PJ18-2010 - Rignot E., Koppes M., **Velicogna I.**, 'Rapid submarine melting of the calving faces of West Greenland glaciers', *Nature Geosci.*, Vol. 3, 187-191, doi: 10.1038/NGEO765.
- PJ17-2010 - Tamisiea M.E., Hill W.M., Ponte R.M., Davis J.L., **Velicogna I.**, 'Impact of self-attraction and loading on the annual cycle in sea level', *J. Geophys. Res.*, Vol. 115, C07004, doi:10.1029/2010JB007530.
- PJ16-2009 - van den Broeke M., Bamber J., Ettema J., Rignot E., Schrama E., Van De Berg W., Van Meijgaard E., **Velicogna I.**, Wouters B., 'Partitioning recent Greenland mass loss', *Science*, Vol. 326, 984-986, doi:10.1126/science.1178176.
- PJ15-2009 - **Velicogna I.**, 'Increasing rates of ice mass loss from the Greenland and Antarctic ice sheets revealed by GRACE', *Geophys. Res. Lett.*, Vol. 36, L19503, doi:10.1029/2009GL040222.
- PJ14-2009 - Rodell M., **Velicogna I.**, Famiglietti J., 'Satellite-based estimates of groundwater depletion in India', *Nature*, Vol. 460, 999-U80, doi: 10.1038/nature08238.
- PJ13-2006 - **Velicogna I.**, Wahr J., 'Acceleration of Greenland Ice Mass Loss in Spring 2004', *Nature*, Vol. 443, 329-331, doi:10.1038/nature05168.
- PJ12-2006 - **Velicogna I.**, Wahr J., 'Time variable gravity shows a large mass loss in Antarctica', *Science*, Vol. 311, 1754-1756, doi:10.1126/science11237855.
- PJ11-2006 - Wahr J., Swenson S., **Velicogna I.**, 'The Accuracy of GRACE Mass Estimates', *Geophys. Res. Lett.*, Vol. 33, L06401, doi: 10.1029/2005GL0253052005.
- PJ10-2005 - **Velicogna I.**, Wahr J., 'Ice Mass Balance in Greenland from GRACE', *Geophys. Res. Lett.*, Vol. 32, L18505, doi:10.1029/2005GL023955.
- PJ9-2004 - **Velicogna I.**, Wahr J., Hanna E., Huybrechts P., 'Short term mass variability in Greenland, from GRACE', *Geophys. Res. Lett.*, Vol. 32, L05501, doi:10.1029/2004GL021948.
- PJ8-2004 - Wahr J., Swenson S., Zlotnicki V., **Velicogna I.**, 'Time-Variable Gravity from GRACE: First Results', *Geophys. Res. Lett.*, Vol. 31, L1150, doi:10.1029/2004GL019779.
- PJ7-2004 - Perez-Gussinye M., Lowry A.R., Watts A.B., **Velicogna I.**, 'On the recovery of realistic effective elastic thickness structures using spectral methods', *J. Geophys. Res.*, Vol. 109, B10409, doi:10.1029/2003JB002788.
- PJ6-2003 - Wahr J., **Velicogna I.**, 'What might GRACE contribute to studies of post glacial rebound?' *Space Sci. Rev.*, Vol. 108 (1-2), 319-330, doi:10.1023/A:1026183526762.
- PJ5-2002 - **Velicogna I.**, Wahr J., 'Post Glacial rebound and Earth's Viscosity Structure From GRACE'. *J. Geophys. Res.*, Vol. 107, 2376, doi:10.1029/2001JB001735.
- PJ4-2002 - **Velicogna I.**, Wahr J., 'A method for separating Antarctic postglacial rebound and ice mass balance using future ICESat Geoscience Laser Altimeter System, Gravity Recovery and Climate Experiment, and GPS satellite data', *J. Geophys. Res.*, Vol. 107, 2263, doi: 10.1029/2001JB000708.
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- PJ2-1999 - Accaino F., Cazzaro R., Cernobori L., Costa G., Della Vedova B., Kravanja S., Marson I.,

Nicolich R., Panza G.F., Suhadolc P., Sarao A., Pellis G., Romanelli F., Vaccari F., **Velicogna I.**, 'Structure and physical properties of the tectosphere in the metastable Europe', *Plinius*, 650-667.

PJ1-1998 - Marson, I., Nicolich R., Cernobori L., Stoka M., Liotta D., Palmieri F., **Velicogna I.**, 'CROP-03 profile: a geophysical analysis of data and results', *Mem. Soc. Geol. Ital.* 52, 123-137.

### **Peer-reviewed Conference Proceedings**

PC8-2013 - Diego Fernández-Prieto, Anna Hogg, Jonathan Bamber, Jenny Baesem an, Mark Drinkwater, Vladimir Ryabinin, Konrad Steffen, Wolfgang Di erking, Claude Duguay, Sebastian Gerland, Katharine Giles, Christian Haas, Birgit Heim, Stephen Howell, Ian Joughin, Lars Kaleschke, Stefan Kern, Seymour Laxon, Giovanni Macelloni, Thomas Painter, Frank Paul, Antony J. Payne, Leif Toudal Pedersen, Jouni Pulliainen, Wolfgang Rack, Eric Rignot, Helmut Rott, Ted Scambos, Ernst Schrama, Andrew Shepherd, Tazio Strozzi, Michiel R. van den Broeke, Isabella Velicogna, Jay Zwally, "Earth Observation And Cryosphere Science: The Way Forward", Proc. 'Earth Observation and Cryosphere Science Conf.' ESA SP-712, 1-14.

PC7-2003 - **Velicogna I.** and Wahr J., 'Geodesy and the problem of the ice sheet'. *V Hotine-Marussi Symposium on Mathematical Geodesy, International Association of Geodesy Symposia*, Vol. 127, 264-271.

PC6-2000 - Coren F., Sterzai P., Vidmar R., **Velicogna I.**, 'Buildings and industrial sites monitoring using SAR interferometry - The TS-SAR project'. *Proceedings of the IV National Meeting ASITA (Scientific Association for Territorial and Environmental Information)*, 617-622.

PC5-1997 - Marson I., Stoka M., **Velicogna I.**, Coren F., Zanolla C., 'Gravity, geoid, isostasy and moho depth in Ross Sea Antarctica', *IAG Symposia Vol 117, Gravity, Geoid and Marine Geodesy, Segawa et al. (eds.), Springer Verlag Berlin Heidelberg*, 351-359.

PC4-1997 - Cerutti G., De Maria P., Desogus S., Mazzoleni F., Marson I., **Velicogna I.**, 'Absolute gravimetry in the Central European Initiative: The Italian contribution'. *Proc. of EGS Symposium G14, Warsaw University of Technology*, 3 (26), 105-111.

PC3-1997 - Marson, I., Stoka M., **Velicogna I.**, Coren F., Zanolla C., 'Trend Analysis in the Ross Sea, Antarctica'. *Atti del 15th Convegno GNGTS, CNR. Roma*, 127-132.

PC2-1997 - Foti A., Pinna E., **Velicogna I.**, 'Isostatic moho and upper mantle structure in North-Central Italy from gravity analysis'. *Atti 15th Convegno GNGTS, CNR. Roma*, 483-489.

PC1-1996 - **Velicogna I.**, Marson I., Suhadolc P. 'Moho morphology from gravity, topography and isostasy'. *Atti del 14th Convegno GNGTS, CNR. Roma*, 405-418.

### **Book Chapters**

BC3-2017 – Remy F., Memin A., **Velicogna I.**, 'Applications of Satellite Altimetry to Study the Antarctic Ice Sheet' in *Satellite Altimetry over Oceans and Land Surfaces*, CRC Press ISBN 9781498743457.

BC2-2013 - Observations: Cryosphere Supplementary Material, DG. Vaughan, JC. Comiso, I Allison, J Carrasco, G Kaser, R Kwok, P Mote, T Murray, F Paul, J Ren [...], D Robinson, M Sharp, N Shiklomanov, S Smith, S Stammerjohn, **I. Velicogna**, P Wadhams, A Worby, L Zhao, IPCC AR5, *Climate Change 2013: The Physical Science Basis*, Edited by Stocker TF, Qin D., Plattner G-K, Tignor M., Allen SK, Buschung J., Nauels A., Xia Y., Bex V., Midgley PM, 09/2013: chapter Cryosphere Supplementary Material: pages 45M1-45M10; Cambridge University Press. IPCC AR5

BC1-2007 - Bentley, C., Thomas R., **Velicogna I.**, 'Ice sheets' in *Global Outlook for Ice and Snow* ISBN: 9789280727999 United Nations Environment Program Publication.



### **Peer-reviewed Technical report**

2013. “Opportunities to Use Remote Sensing in Understanding Permafrost and Related Ecological Characteristics”. *National Research Council of the National Academy of Science*. <https://doi.org/10.17226/18711>.
2011. “Legacies and Lessons of International Polar Year 2007-2008”. *National Research Council of the National Academy of Science*. DOI 10.17226/13321.

### **GRANTS AND CONTRACTS**

#### **Current Funding:**

- *NASA ROSES-17 NNH17ZDA001N-CRYO* “Evaluation of ice sheet surface mass balance models in the ablation zone using ICESat, Operation IceBridge and other data”. PI: Isabella Velicogna. Dates: 07/01/2018-06/30/2021. \$461K.
- *NASA ROSES-16 NNH16ZDA001N-SLCT* “Quantifying and reducing uncertainty in future global and local sea-level estimates: linking physics, observations, and risk analysis to inform climate adaptation” PI: Isabella Velicogna. Dates: 09/19/2017-09/18/2020, \$1.8M.
- *NASA ROSES-15 NNH15ZDA001N-HMA*, “Contribution of High Mountain Asia glacier changes to river basin hydrology using GRACE gravity and other data”. PI: Isabella Velicogna. Dates: 8/1/2016-7/31/2019, \$706K.
- *NASA ROSES-15 NNH15ZDA001N-SMAP*, “Characterization of regional drought impacts using satellite observations from SMAP and GRACE”. PI: Isabella Velicogna. Dates: 9/1/2016-8/31/2019. \$460K.
- *NASA ROSES-15 GRACE and GRACE-FO SCIENCE TEAM*, “Ice sheet contributions to global sea level from GRACE and GRACE Follow-On”. PI: Isabella Velicogna. Dates: 12/1/2015-11/30/2019, \$604K.
- *NASA ROSES-14 IceBridge Research*, ‘Reducing uncertainties in Greenland surface mass balance using IceBridge altimetry, GRACE data and regional atmospheric climate model outputs’ PI: Isabella Velicogna. Dates: 12/14-11/17. \$310K.
- *NASA ROSES-13 Terrestrial Hydrology Program (THP)*, ‘Quantifying recent drought and terrestrial water storage changes on boreal/Arctic vegetation and productivity using integrated satellite observations from MODIS, AMSR-E and GRACE’. PI: Isabella Velicogna. Dates: 01/14-12/17. \$378K.
- *NASA ROSES-13 Sea Level Rise (SLR)*, ‘Land Contributions to Regional and Global Mean Sea Level Rise’. PI: Jay Famiglietti, Co-PI: Isabella Velicogna. Dates: 10/13-9/19, \$1.3M.

**Pending:** none

#### **Prior Funding (past 10 yrs):**

- *NASA ROSES-13 Sea Level Rise (SLR)*, ‘Mass balance and bed topography datasets of ice sheets for sea level studies’. PI: Eric Rignot (UCI), Co-PI: Isabella Velicogna. Dates: 10/13-9/16, \$1.2M.
- *NASA-GNSS Remote Sensing Science Team ROSES II*, ‘Accurate meteorology over Antarctica based on GPS-RO profiles for GRACE mass balance determination’. PI: David Bromwich (OSU), Co-P.I.: Isabella Velicogna. Dates: 10/2013-09/2016, \$607K.
- *Gordon & Betty Moore Foundation Science Program* ‘Fire Season and Drought Forecasting System Development’. Dates: 2012-2018 PI: James Randerson UCI, Co-PI Isabella Velicogna. \$1.9M.
- *Jet Propulsion Laboratory - GRACE Follow-On Science Advisory Team*. ‘Improving the accuracy of GRACE long term and interannual estimates of regional ice sheet mass balance’. PI: Isabella Velicogna, Dates: 2012-2015. \$210K.

- *Center for Space Research - University of Texas, Austin – GRACE Science Team Member.* ‘Assessment and validation of GRACE data products’ Dates: 6/2012-9/2013. PI: Isabella Velicogna, \$112K.
- *Center for Space Research - University of Texas, Austin – GRACE Science Team Member.* ‘Assessment and validation of GRACE data products’ Dates: 09/2013-10/2014. PI: Isabella Velicogna, \$114K.
- *NASA ROSES-07 Hydrology Program.* ‘Terrestrial water storage changes and boreal drought under a warming climate: investigation with multi-sensor satellite observations, in-situ data, and hydro-ecological process modeling’. PI: Isabella Velicogna. Co-P.I.: Kyle McDonald (JPL) and John Kimball (U. Montana). Dates: 06/09-05/13, \$600K.
- *NASA ROSES-09 Inter-Disciplinary Science (IDS)-Program,* ‘Regional pattern of sea level change from the melting of the Greenland, Antarctic and Patagonia ice sheets derived from combined InSAR ice motion, reconstructed surface mass balance and GRACE time-variable gravity’. PI: Eric Rignot, Co-PI: Isabella Velicogna, John Wahr (U. Colorado) Dates: 08/10-07/13, \$1.247M
- *NASA-NNH08ZDA001N Modeling, Analysis and Prediction (MAP) Program,* ‘A three-dimensional, high-resolution flow model of the Greenland ice sheet: validation and prediction’. PI: Eric Rignot, Co-PI Isabella Velicogna, Eric Larour (JPL). Dates: 01/09-12/12, \$962K.
- *NASA-Hydrology Program,* ‘Mass changes in Earth’s global water reservoirs’. PI: James Famiglietti, Co-PI: Don Chamber (U. Texas), Steve Nerem (U. Colorado), Isabella Velicogna. Dates: 2007-2012, \$1,034K
- *NASA Hydrology Program,* ‘The Eurasian fresh water cycle from GRACE and in-situ hydrologic networks: distinguishing water behavior in permafrost and non-permafrost regions’. PI: Isabella Velicogna, Co-PI: Larry Smith (UCLA). Dates: 2008-2012, \$271K.
- *NASA ROSES-07 Cryosphere Program.* ‘Interpretation and uncertainties in ice sheet mass balance and seasonal variability from GRACE data’. PI: Isabella Velicogna. Co-PI: Mike Watkins (JPL). Dates: 06/08-05/12, \$457K.
- *NASA ROSES-06 Solid Earth Program,* ‘Geophysical applications of GRACE’, PI: John Wahr (U. Colorado), Co-PI: Isabella Velicogna. Dates: 07/07-10/11, \$767K.
- *NASA ROSES-05 Cryosphere Program,* ‘Mass balance of the polar ice sheets’. PI: John Wahr (U. Colorado), Co-PI: Isabella Velicogna. Dates: 09/07-09/11, \$304K.
- *NSF-OPP,* ‘Collaborative Research : Calculation of Antarctic gravity field from GRACE satellite data and comparison with independent measurements’. PI: Isabella Velicogna, Co-PI: Garry Karner (LDEO), Robin Bell (LDEO). Dates: 2004-2008, \$455K.
- *NASA SENH Research and Applications Program,* ‘Geopotential heights for GRACE de-Aliasing: comparison of SAC-C, CHAMP and GRACE occultation data with global circulation models’, PI: Isabella Velicogna Co-PI: George Hajj (JPL). Dates: 2004-2008, \$245K.

## **PROFESSIONAL ACTIVITIES AND INTERNATIONAL COMMITTEE MEMBERSHIPS**

- **2019 -Present** **National Academies of Sciences Workshop on “Groundwater Recharge and Flow: Approaches and Challenges for Monitoring and Modeling using Remotely Sensed Data”.** **Invited Expert Speaker/Panelist.** Nominated.
- **2018-Present** **National Academies of Sciences committee on “Evolving the Geodetic Infrastructure to Meet New Scientific Needs”.** **Committee Member.** Nominated.
- **2018-Present** - **AGU’s Whitten Medal Selection Committee.** Appointed.
- **2017-Present** - **EGU’s Vening Meinesz Medal Selection Committee.** Appointed.
- **2017-Present** - **Intergovernmental Panel on Climate Change (IPCC) Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC),** *Contributing Author,*

Chapter 2: High Mountain Areas. *Contributing Author*. Appointed.

- **2017-Present** - **Intergovernmental Panel on Climate Change (IPCC) Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)**, Chapter 3: polar Regions. *Contributing Author*. Appointed.
- **2013-2016** - **Intergovernmental Panel on Climate Change Fifth Assessment (IPCC)**. *Contributing Author*, Working Group I, Chapter 3, “Cryosphere”. Appointed.
- **2016-Present** - **NASA Sea Level Change Team (SLCT)**, *Science Team Member Appointed*.
- **2016-Present** - **NASA High Mountain Asia science Team (HiMAT)**, *Science Team Member Appointed*.
- **2016-Present** - **NASA Soil Moisture Active Passive (SMAP) satellite mission**, *Science Team Member*.
- **2016-2017** - **White House Office of Science and Technology Policy (OSTP) national Earth Observations Assessment (EOA 2016)**. Appointed as a Climate subject matter expert for Land ice.
- **2015-2016-** **NASA- Earth Surface and Interior (ESI) Focus Area, to define of NASA-ESI strategic plan updated for the next 15+ years**. *Committee member, appointed*.
- **2015-Present** - **Executive committee NASA/European Space Agency (ESA): Ice sheet Mass Balance Inter-comparison Experiment-2 (IMBIE-2) initiative**. *Executive committee member, and discipline leader for time variable gravity. Appointed*.
- **2015/07** - **Panelist for UCI-Earth System Science for His Holiness The Dalai Lama 80<sup>th</sup> Birthday Celebration**. “Panel on the Effects of Climate Change and Taking Action to Resolve this Global Issue”, Irvine (CA).
- **2015-Present** - **NASA/German Aerospace Center (DLR) Science Team Member of Gravity Recovery and Climate Experiment (GRACE) and GRACE Follow-On (FO) Satellite missions**. *Appointed*.
- **2012-Present** - **NASA/DLR Science Definition Team Member of GRACE Follow-On satellite mission**. *Appointed*.
- **2002-2015** - **NASA/DLR Science Team Member of the GRACE-1 satellite mission**. *Appointed*.
- **2006-2013** - **Editor Geophysical Journal International**
- **2013** - **National Academy of Sciences (NAS) committee on ‘Opportunities to Use Remote Sensing in Understanding Permafrost and Ecosystems using remote sensing to advance our understanding of permafrost status and trends as well as the ecological impacts of permafrost change’**. *Invited Expert Panel member, Nov 2013*.
- **2013** - **Scientific Committee on Antarctic Research (SCAR) Antarctic Climate 2100 Scientific Research Program for “Quantification of Antarctic Climate Variability”**, Nov 2013. *Invited Expert Panel member and guest speaker, Invitation only*.
- **2013** - **Keck Institute for Space Studies (KISS), Caltech-JPL, Invitee to the “The Sleeping Giant: Measuring Ocean Ice Interactions in Antarctica” international workshop** to study the “tipping point” of global sea level rise and develop scientific requirements for an observing system to monitor the Southern Ocean. *Invited Expert member, Sep 2013*.
- **2012-Present** - **International Union of Geodesy and Geophysics (IUGG) and the International Association of Geodesy (IAG)**. *Invited Expert committee member on ‘Future gravity missions science requirements for cryospheric research’*.
- **2010-2013** - **Intergovernmental Panel on Climate Change Fifth Assessment (IPCC AR5)**. *Contributing Author and Expert Reviewer, Working Group 1, Chapter 4*. Appointed.
- **2012-2013** - **National Climate Assessment (NCA) 2013**. *Invited contributor*.

- **2011-Present - International Association of Geodesy (IAG).** *Invited Member* Inter-commission Committee on Theory (ICCT) - Commission 2 joint study group 'Theory and Inversion in Gravity-Solid Earth Coupling' (2011-Present).
- **2011-2014- NASA/European Space Agency (ESA): Ice sheet Mass Balance Inter-comparison Experiment (IMBIE).** *Participant. Appointed.*
- **2011- National Academy of Science, Panel Member** Workshop to produce a report on Legacies and Lessons of International Polar Year 2007-2008. *Appointed. Invitation only.*
- **2004-2010- American Geophysical Union (AGU), Member, Hydrology Remote Sensing Committee.**
- **2006-2007- American Geophysical Union (AGU), Chair, Hydrology Remote Sensing Committee.**
- **2006-2008- American Geophysical Union (AGU), Chair, Geodesy Fall Meeting.**
- **2006-2008- American Geophysical Union (AGU), Member, Geodesy Executive Committee.**
- **Session Organizer and Convener** (Fall AGU 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2014, 2015, 2016)
- **European Geophysical Society Session Organizer and Convener** (2002, 2003; EGU 2004, 2005, 2006, 2007)
- **2007- International Union of Geodesy and Geophysics (IUGG) Session Organizer and Convener**
- **2004-Present- Northern Eurasia Earth Science Partnership Initiative (NEESPI) Science Team Member.**
- **2004-2012- NASA Energy and Water Cycle Study (NEWS) Science Team Member.**
- **2004-2012- NASA Land Cover Land Use Change Science Team Member.**
- **2002- Present- Ad hoc Manuscript Reviewer** for J. Geophys. Res., Geophys. Res. Lett., Geophys. J. Int., J. of Hydrology, Earth Planet. Sci. Lett., Earth, Planets and Space, J. of Geodesy, J. of Glaciology, J. of Climate, Science, Nature, Nature climate change, Nature geoscience, the Cryosphere.
- **2003- Present- Proposal Reviewer (for National and International Agencies)** NASA; NSF; National Oceanic and Atmospheric Administration (NOAA); European Space Agency (ESA); Netherlands Organization for Scientific Research (The Netherlands); The Secretariat of the Top-level Research Initiative (Norway); Australian Antarctic Science (AAS) Program.
- **2007-Present- Review Board for Funding Agencies (Panel Member):** NASA Cryosphere Program. NSF Office of Polar Program.

#### **PROFESSIONAL MEMBERSHIPS**

2018-Present	American Meteorological Society (AMS)
2016-Present	American Association for the Advancement of Science (AAAS)
1999-Present	American Geophysical Union (AGU).
2004-Present	International Glaciological Society (IGS).
1995-Present	European Geophysical Union (EGU)

#### **RECENT OUTREACH ACTIVITY**

- ◆ Co-organized a conference within the UCI/Newkirk Center lecture series 'Toward a Sustainable 21st Century', John Whiteley lead organizer.
- ◆ Interviews in Press and Medias about ice sheet mass balance.
- ◆ Served in the Scientific Committee for the exhibit "Poles in Peril" of the Aquarium of the Pacific, Long Beach, CA. (2008-2011)
- ◆ Participated in a Documentary on the GRACE satellite mission for the American Museum of Natural History, New York, NY.
- ◆ Participated in the development of a podcast series on climate change for Climate Central, a non-profit production company.
- ◆ Served in the Climate Science Rapid Response Team for selected invited scientists to provide rapid

information to media and government officials on climate change issues, Ray Weymann organizer.

## **UC IRVINE SERVICES**

- Search Committee Dean of School of Physical Sciences, Appointed, 2018.
- UCI Delegation to the International STEM Equality Congress, The Netherlands, Oct 2018
- Senate Ad Hoc Diversity Committee (2018) to develop a charge for a Senate council on equity and inclusion. The Senate Cabinet and the Committee on Rules and Jurisdiction (CRJ) approved the “proposal to establish bylaw 90. equity and inclusion, council” implementing the committee defined charges
- Search Committee for Chairs of Earth System Science at UCI (2016).
- Search Committee for Chairs of Physics and Astronomy (2016).
- Dean review committee, School of Physical Sciences (2015-2016)
- Foster the participation of UCI into the Jet Propulsion Laboratory (JPL) SURP program. SURP is a high-level agreement between JPL and academic organizations that recognizes broad connections between the two institutions in both science and engineering, enables seed funding of research projects, exchange of graduate students and postdocs, and opens a pipeline for hiring into JPL’s organization. Leadership at JPL feels that the SURP arrangement glues JPL to its partners, and appears to align well with UCI’s vision for growth.
- Evaluation of Mid-Career Hire proposals (2015-2016) for the School of Physical Sciences.
- Evaluation of High Impact Hire Proposals (HIHP), Fall 2015, Spring 2016, Fall 2016.
- Equity Advisor for the School of Physical Sciences, UCI, (2015-2018).
- Member of Strategic Planning Working Group 1 "Global Leadership To Solve 21st Century Challenges Through Excellence In Research And Teaching, Supported By Strategic Expansion And Institutional Innovation” part of the UCI strategic planning effort “UCI: Bright Past, Brilliant Future” (2014-2015).
- Member, Award Committee for Earth System Science (2015-2016-2017-2018).
- Member, Graduate Student Admission Committee for Earth System Science (2008-2010-2011-2012-2013-2014-2015-2016-2017).
- Board on Undergraduate Scholarships, Honors, and Financial Aids for the Fall 2013.
- Member, Search Committee for Faculty Position in Hydrometeorology, Department of Engineering (2009–2010).
- Member, Search Committee for Faculty Position in Physical Climate, ESS (2011-2012).
- Served on 25 PhD Thesis committees.
- Coordination of Departmental Seminar Series. Invited and hosted a total of 10 guest speakers from outside UCI (2008–Present).
- Promote UCI female career in Science, Engineering and Mathematics by mentoring UCI female students and facilitating interactions with JPL-NASA scientists.
- Participate in NSF Integrative Graduate Education and Research Traineeship (IGERT) Proposal initiative (2008).
- Lead the definition of a UCI/University of Bari (Italy) Memorandum of Understanding to develop scientific collaboration and exchange of undergraduate and graduate students between the two institutions (2012-2013)
- Participate in the “Sea Level Rise - Vulnerability and Uncertainty “ initiative by UCI Environment Institute to collaborate with the Jet Propulsion Laboratory and promote collaborations between the Schools of Physical Science, Engineering, Law and Humanities at UCI.
- Implement new and innovative educational material in all taught undergraduate courses to form a basis for future internet-based classes, to enhance student learning and to increase undergraduate student enrollment. Take leadership in implementing these changes in response to teaching and enrollment goals of the Department of Earth System Science.

## **MENTORING**

### **Associate Project Scientist Supervisor**

- Dr. Geruo A, ESS, UCI (2018-Present).

### **Assistant Project Scientist Supervisor**

- Dr. P. Kishore, ESS, UCI (2008-Present).
- Dr. Geruo A, ESS, UCI (2016-2018).

### **Post-Doctoral Fellows Supervised**

- Dr. Chia-Wei Hsu, ESS, UCI (2017-2018).
- Dr. Tyler Sutterley, ESS, UCI (2016)
- Dr. Geruo A, ESS, UCI (2013-2016).
- Dr. Jinjun Tong, ESS, UCI (2009-2012).

### **PhD Students Supervised**

- Chia-Chun Liang, ESS, UCI (2018-Present, PhD student, Chair).
- Zhuoya He, ESS, UCI (2016-Present, PhD student, Chair).
- Yara Mohajerani, ESS, UCI (2014-Present, PhD student, Advanced to candidacy Chair).
- Meng Zhao, ESS, UCI (2013-Present, PhD student, Advanced to candidacy Chair).
- Enrico Ciraci, ESS, UCI (2012-Graduating in Aug 2018, PhD student, Chair, Advanced to candidacy Chair).
- Chia-Wei Hsu, ESS, UCI (2011-2017 PhD student, Chair, Completed).
- Tyler Sutterley, ESS, UCI (2010-2016, PhD student, Chair, Completed).
- Aimee Gibbons - ESS, UCI, (2013-2016, PhD student, Co-Advisor, Completed).
- George Azzari, ESS, UCI (2009-2010, PhD student, Chair).
- Dr. Adrienne Smith-Block, Lamont-Doherty Earth Observatory (LDEO), Columbia University, (2006-2011, Co-Advisor, Completed).
- Dr. Louise Sandberg Sørensen, National Space Institute, Geodynamics, (Technical University of Denmark) DTU-Space, Denmark, (2006-2010, Co-Advisor, Completed).
- Dr. Nicola Creati, Univ. of Chieti, Italy, (1999-2003, Co-Advisor, Completed).

### **Master's Thesis Students Supervised**

- Enrico Ciraci', Dept. of Physics, University of Bari, Italy, (2010-2012, Co-Chair).
- Erin Delman- ESS UCI, (2015-2017, Completed, Committee member,)
- Rachel Resolarczyk, ESS, UCI (2008-2009, Completed, Chair).

### **Undergraduate Students Supervised**

- Conner Clark, Information and Computer Sciences, UCI, research (2017-2018).
- Ian Wahl, Information and Computer Sciences, UCI, research (2017-2018).
- Justin Dobrusky, Information and Computer Sciences, UCI, research (2017-2018).
- Josue Alfaro, Physics Dept., UCI, Honor Thesis advisor (2008-2009).
- Catherine Hatch, Utah State University, Honor Thesis advisor, 2007.

### **Served On PhD Dissertation Committees Of**

- Tyler Pelle - ESS UCI, (2015-Present)
- Emily Kane- ESS UCI, (2015-Present)
- Michael Wood- ESS UCI, (2015-Present)
- Cilan Cai - ESS, UCI, (2014-2018, Completed).
- Hongju Yu - ESS, UCI, (2014-2018, Completed).
- Lu An - ESS, UCI, (2013-2017, Completed).
- Romain Millan- ESS UCI, (2015-2018, Completed)
- Hrishikesh Chandanpurkar - ESS, UCI, (2012-2016, Completed).

- Jamiat Nanteza - ESS, UCI, (2012-2016, Completed).
- Lawrence Collin - ESS, UCI, (2009-2014, Completed).
- Tsou Chun – Dept. of Civil and Environmental Engineering, UCI, (2009-2015, Completed).
- Jingjing Li – Dept. of Civil and Environmental Engineering, UCI, (2009-2015, Completed).
- Rebeka Sultana- Dept. of Civil and Environmental Engineering, UCI, (2009-2015, Completed).
- Karli Anderson - ESS, UCI, (2009-2013, Completed).
- JT Reager - ESS, UCI, (2007-2012, Completed).
- Dr. Qing Xia - Dept. Civil and Environmental Engineering, UCI, (2007-2011, Completed)

## **TEACHING**

Courses developed and taught at UC Irvine:

- EarthSS 15 Introduction to Global Climate Change, Spring 2010, 2011, 2012, 2013, 2014 UCI. General Education class that I developed and practiced.
- EarthSS 236 Advanced Remote Sensing, Spring 2008-2009. Elective, upper-level graduate courses.
- EarthSS 112 Global Climate Change, Winter 2017, Spring 2018, Fall 2018 UCI. Elective, upper-level undergraduate, graduate course. I re-developed this course lecture and practice.
- EarthSS 174 Ice in the Climate System, Winter 2014, 2015, 2016 UCI. Elective, upper-level undergraduate, graduate course. I developed this course lecture and practice.
- EarthSS 274 Ice in the Climate System, Winter 2014, 2015, 2016 UCI. Graduate.
- EarthSS 202 Climate Change. Spring 2015, 2016 UCI. Graduate.
- EarthSS 116 Data Analysis, Fall 2008, 2009, 2010, 2011, 2012 UCI. Required course for majors in Earth and Environmental Science.
- EarthSS 191 Research for Undergraduate, Fall 2008, 2009, 2010, 2011, 2012 UCI. undergraduate Research.
- EarthSS 280 Cryosphere Topics, 2013-Spring, 2014-2015-2016-2017-Fall/Winter/Spring UCI. Elective graduate course.
- EarthSS 280 Gravity Topics, 2013-Spring, 2014-2015-2016-2017-Fall/Winter/Spring, UCI. Elective graduate course.

## **FIELD EXPERIENCE**

- Measurements of current, salinity and temperature profile in tidewater glacier fjords, Greenland (2008, 2015, 2018).
- Precision gravity measurements (Italy, 1997-1998)
- GPS campaign survey (Wabash Valley, midcontinent U.S., 1998)

## **INVITED PRESENTATIONS AT EDUCATIONAL AND GOVERNMENTAL INSTITUTIONS AND PROFESSIONAL MEETINGS**

- 2019** – Invited speaker, Department Polytechnic of Engineering and Architecture of the University of Udine, ‘Remote sensing studies of land water and ice mass from space: results and implications’, Udine, Italy, Jan 2019.
- 2018** – Invited Speaker, Memento Ecole Polytechnic Federale De Lausanne Seminar Series, ‘Time-variable gravity studies of ice sheets and glacier mass balance and partitioning of the water cycle in high mountain environment’, Lausanne, Switzerland, Dec 2018
- 2018** – Invited Speaker, GRACE Science Team Meeting, ‘Weighting ice from space with GRACE and GRACE-FO’, Vandenberg, CA, May 2018.

- 2017** - Invited speaker, Heiland Lecture, Distinguished Lecture at Colorado School of Mines “Weighting climate change from space” Colorado School of Mines, Golden, CO, Nov 2017.
- 2017** - Invited speaker, at the International Conference on “High Altitudes meet High Latitudes: Globalizing Polar Issues Crans-Montana, Swiss, Sep 2017.
- 2017** - Invited speaker, European Geophysical Union (EGU), Vening Meinesz Medal Lecture “Weighting climate change from space” Vienna, Austria, Apr 2017.
- 2017** - Invited speaker, 3rd Blue Planet Symposium, “The changing cryosphere and impact on regional sea level” NOAA, College Park, Maryland, USA Jun 2017.
- 2016** - Invited speaker, Dept. of Earth and Planetary Science, “Weighting climate change from space” University of Harvard, CA. Apr. 2016.
- 2016** - Invited speaker, Dept. of Earth and Planetary Science, “Weighting climate change from space” University of Berkeley, CA. March 2016.
- 2015** - Invited speaker, National Academy of Science and Kavli Foundation, Frontiers of Science Symposium “Observing Earth from Space”, Irvine, CA, Nov 2015.
- 2015** - Invited speaker, Center for Coastal Physical Oceanography and the Mitigation and Adaptation Research Institute (MARI) at Old Dominion University, “Regional sea level variability from ice sheets, glaciers and land hydrology” Norfolk, VA. Feb 2015.
- 2015** - Invited speaker, Greenland Surface Mass Balance Meeting, NASA's Goddard Space Flight Center, “Using GRACE to improve surface mass balance estimates”, Baltimore, MD, Jan 2015
- 2014** - Invited speaker, Fall AGU 2014, Session: “Understanding spatial and temporal variability of sea level rise”. San Francisco, CA, Dec 2014.
- 2014** - Invited speaker, Dept. of Earth Sciences, University of Oxford, “Time variable gravity studies of ice sheet mass balance and regional sea level. Oxford, UK, Nov 2014.
- 2013** - Invited speaker for the Scientific Committee on Antarctic Research (SCAR) Antarctic Climate 2100 Scientific Research Program for Quantification of Antarctic Climate Variability, “Mass balance of the Antarctica ice sheet”. Castine, Maine. Sept. 2013.
- 2012** - Invited speaker, Ice Sheet System Model (ISSM) Workshop, “Greenland and Antarctica ice mass changes from GRACE”. University of California Irvine, Irvine, CA. Dec. 2012.
- 2012** - Invited speaker and panelist at the Italian Consulate and Italian Cultural Institute of Los Angeles to promote research work of Italian scientists in the US. Los Angeles, CA. June 2012,
- 2012** - Invited speaker, ‘Geodynamics Seminar Series’ Woods Hole Oceanographic Institution. Woods Hole, MA. May 2012.
- 2011** - Invited speaker, UCI Smart Energy, Sustainable Environment (SE2) Tutorial, “Climate Change and the Diminution of the Polar Ice Caps”, Beckman Center of the National Academies, Irvine, CA. Nov 2011.
- 2011** - Invited speaker and panelist, ‘Glacier Melt, Early Snowmelt & Sea Level Rise: Toward a Sustainable 21st Century Series’ organized by the Newkirk Center for Science and Society. Beckman Center of the National Academies, University of California, Irvine. Irvine CA.
- 2011** - Invited speaker at the JPL workshop on ‘Understanding Sea Level Rise: The Roles of Coupled Systems’. Pasadena, CA, Aug 2011.
- 2010** - Keynote speaker at the IPCC AR5 WG1 Workshop on Sea Level Rise and Ice Sheet Instabilities. ‘Satellite- based Observations of Sea Level Rise from Large Ice Sheets’, Kuala Lumpur, Malaysia, Jun 2010.
- 2010** - Invited speaker, Soil and Water Sciences Seminar Dept. of Environmental Sciences, UC Riverside, CA.
- 2009** - Invited speaker, Nuuk Climate Days, International Glaciological Society (IGS) Conference, Jul 2009.
- 2009** - Invited speaker, Joint DynaQlim/GGOS Workshop, Espoo, Finland, June 2009.



- 2008 - Invited keynote speaker at the Japanese-American Kavli Frontiers of Science Symposium - National Academy of Sciences symposium, May 2008.
- 2008 - Seminar series, Dept. of Physics, University of Udine, Udine, Italy, Aug 2008.
- 2008 - Environmental program on Global Change and Oceans organized by the Newkirk Center.
- 2008 - Whole Earth Seminar Spring, Dept. of Earth & Planetary Sciences University of California Santa Cruz, California.
- 2007 - Institute of Geophysics and Planetary Physics (IGPP), UCLA, California.
- 2007 - National Institute of Geophysics and Volcanology, Bologna, Italy.
- 2007 - Heiland Lecture Series, Department of Geophysics, Colorado School of Mines.
- 2007 - Seminar series, Dept. of Geophysics, Colorado school of Mines.
- 2007 - Jet Propulsion Laboratory-NASA, Division Seminar.
- 2006 - Dept. of Geophysics, Stanford University;
- 2006 - Dept. of Earth Sciences, University of Southern California.
- 2006 - Earth and Environmental Science Dept., New Mexico Tech.
- 2005 - Dept. of Geography, UCLA;
- 2005 - Dept. of Physics, New Mexico State University.
- 2004 - Jet Propulsion Laboratory (JPL)-NASA.
- 2003 - International Center for Science and High Technology, United Nation Industrial Development Organization (UNIDO);
- 2003 - University of Munich, Austria;-- National Center for Atmospheric Research, Boulder;
- 2003 - National Institute of Oceanography and Experimental Geophysics, Trieste, Italy;
- 2003 - Program in Atmospheric and Oceanic Sciences (PAOS), University of Colorado.
- 2002 - Institute de Physique du Globe de Paris, (IPGP), France;
- 2002 - Dept. of Physics University of Toronto, Canada;
- 2002 - Institute of Geophysics, Austin TX;
- 2002 - Dept. of Civil and Environmental Engineering, Princeton University;
- 2002 - Dept. of Geomatics University of Calgary, Canada;
- 2002 - Jet Propulsion Laboratory (JPL)-NASA.
- 2001 - University of Udine, Italy.
- 1998 - Lamont-Doherty Earth Observatory, Columbia University;
- 1998 - Dept. of Geophysics, Massachusetts Institute of Technology (MIT);
- 1998 - Dept. of Geological Science, University of Utah;
- 1998 - Dept. of Geological Science, Indiana University.

## **CONFERENCE ABSTRACTS (SINCE 2001)**

### **Published Conference Abstracts:**

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PA123- **Velicogna I., Mohajerani Y., Sutterley T.**, Glacier mass balance and surface mass balance evaluation with laser altimetry and other data.' Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan 2018.

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PA133- **Ciraci E., Velicogna I., Fettweis X.**, 'Mass Balance of Novaya Zemlya Archipelago from 2002 to Present' American Geophysical Union Fall Meeting, ABSTRACT C41B-0392, New Orleans, Louisiana, Dec 2017.

PA132- **Mohajerani Y., Velicogna I., Sutterley T., Rignot E.**, 'Regionally Optimized GRACE Processing and Inter-comparison on the Antarctic Ice Sheet', American Geophysical Union Fall Meeting, ABSTRACT G31B-0408, New Orleans, Louisiana, Dec 2017.

- PA131- Kishore P., **Velicogna I.**, Ciraci E., Mohajerani Y., 'Evaluating the High Asia Reanalysis (HAR) using Gauge-based and Satellite Precipitation Data over High Mountain Asia', American Geophysical Union Fall Meeting, ABSTRACT H43D-1975, New Orleans, Louisiana, Dec 2017.
- PA130- Hsu CW., **Velicogna I.**, 'On the Impact of Sea Level Fingerprints on the Estimation of the Meridional Geostrophic Transport in the Atlantic Basin.' American Geophysical Union Fall Meeting, ABSTRACT A53D-1495, New Orleans, Louisiana, Dec 2017.
- PA129- **Velicogna I.**, A G., Ciraci' E., Grogan D., Lammers R., 'Partitioning of the water budget in the main river basins in High Mountain Asia with GRACE, model output, and other observations.' American Geophysical Union Fall Meeting, ABSTRACT C41F-04, New Orleans, Louisiana, Dec 2017.
- PA128- Sutterley T., **Velicogna I.**, Neumann T., Markus T., 'Antarctic surface elevation and slope from multi-mission lidar mapping.' American Geophysical Union Fall Meeting, ABSTRACT C51A-0328 , New Orleans, Louisiana, Dec 2017.
- PA127- Zhao M., **Velicogna I.**, Kimball J., 'Characterizing ecosystem response to water supply changes inferred from GRACE drought severity index and surface soil moisture anomalies from ESA CCI and SMAP .' American Geophysical Union Fall Meeting, ABSTRACT H23B-1729 , New Orleans, Louisiana, Dec 2017.
- PA126- Zhuoya He., **Velicogna I.**, Hsu CW., Rignot E., Mouginit J., Scheuchl B., Fettweis X., van den Broeke M., 'Improved regional sea-level estimates from Ice Sheets, Glaciers and land water storage using GRACE time series and other data.' American Geophysical Union Fall Meeting, ABSTRACT OS22A-07 , New Orleans, Louisiana, Dec 2017.
- PA125- Shepherd A., Ivins E., Smith B., **Velicogna I.**, et al. 'Trends in ice sheet mass balance, 1992 to 2017.' American Geophysical Union Fall Meeting, ABSTRACT G23B-01 , New Orleans, Louisiana, Dec 2017.
- PA124- A G., **Velicogna I.**, Kimball J., Du J., Kim Y., Colliander A., Njoku E., "Satellite Soil Moisture and Water Storage Observations Identify Early and Late Season Water Supply Influencing Plant Growth in the Missouri Watershed." AGU Fall Meeting Abstract H21I-1593, New Orleans, Louisiana, Dec. 2017.
- PA123 - Hsu, CW., **Velicogna, I.**, Improved regional sea-level estimates from present day mass fluxes from Ice Sheets, Glaciers and land water using GRACE. AGU Ocean Science Meeting. ABSTRACT: PO53E-05, Portland, Oregon, Feb 2017.

#### ---2016

- PA122- A G., **Velicogna I.**, Kimball J., Kim Y., Colliander A., Njoku E., "Characterizing Seasonal Drought, Water Supply Pattern and Their Impact on Vegetation Growth Using Satellite Soil Moisture Data, GRACE Water Storage and Precipitation Observations." AGU Fall Meeting Abstracts H43O-06, San Francisco, CA, Dec. 2016
- PA121- Mohajerani Y., **Velicogna I.**, "Optimization of Spherical Cap Mascon Processing on the Ice Sheets for the GRACE and GRACE-FO Missions." AGU Fall Meeting Abstracts G13A-1092, San Francisco, CA, Dec 2016.
- PA120- Hsu CW., **Velicogna I.**, "Terrestrial water cycle induced meridional overturning circulation variability over the Atlantic Ocean." AGU Fall Meeting Abstracts GC33C-1252, San Francisco, CA, Dec 2016.
- PA119- **Velicogna I.**, Sutterley T., A G., van den Broeke MR., Ivins E., "Improved estimate of accelerated Antarctica ice mass loses from GRACE, Altimetry and surface mass balance from regional climate model output" AGU Fall Meeting Abstracts C33D-05, San Francisco, CA, Dec 2016.

- PA118- Ciraci' E., **Velicogna I.**, Fettweis X., van den Broeke MR., "High Arctic Glaciers and Ice Caps Ice Mass Change from GRACE, Regional Climate Model Output and Altimetry." AGU Fall Meeting Abstracts C13D-0861, San Francisco, CA, Dec 2016.
- PA117- Sutterley T., **Velicogna I.**, Fettweis X., van den Broeke MR., "Surface mass balance model evaluation from satellite and airborne lidar mapping." AGU Fall Meeting Abstracts C12B-05, San Francisco, CA, Dec. 2016
- PA116- Kishore P., Ciraci' E., **Velicogna I.**, "Hydrological impact on glacier melt over Asian basins". AGU Fall Meeting Abstracts C11C-0796, San Francisco, CA, Dec. 2016
- PA115- Zhao M., A G., **Velicogna I.**, Kimball, J., "Understanding the time-lag effect of terrestrial ecosystem response to drought: a regional case study of the 2000s Millennium Drought in Australia". AGU Fall Meeting Abstracts B33F-0690, San Francisco, CA, Dec. 2016
- PA114- **Velicogna I.**, " Evaluation of Greenland surface mass balance models using GRACE and OIB time series." Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2016.
- 2015
- PA113- Khazendar A., Rignot E., Schroeder D., Seroussi H., Scheuchl B., Sutterley T., **Velicogna I.**, "Direct Observations of Rapid Basal Melting and Bed Topography in the Grounding Zones of the Dotson and Crosson Ice Shelves, West Antarctica". AGU Fall Meeting Abstracts C51E-08, Dec. 2015.
- PA112- **Sutterley T.**, **Velicogna I.**, "Recent Greenland Thinning from Operation IceBridge ATM and LVIS Data". AGU Fall Meeting Abstracts C53C-0797, Dec. 2015
- PA111- **Velicogna I.**, Hsu CW., Ciraci' E., Sutterley T., "Improved estimates of global sea level change from Ice Sheets, glaciers and land water storage using GRACE". AGU Fall Meeting Abstracts G31A-1103, Dec. 2015
- PA110- Hsu CW., **Velicogna I.**, "Improved regional sea-level estimates from Ice Sheets, glaciers and land water storage using GRACE time series and other data". AGU Fall Meeting Abstracts G52A-04, Dec. 2015
- PA109- Zhao M., A G., **Velicogna I.**, Kimball, J., "Evolution and characterization of drought events from GRACE and other satellite and observation". AGU Fall Meeting Abstracts H41F-1388, Dec. 2015
- PA108- A G., **Velicogna I.**, Kimball J., Kim Y., Colliander A., Njoku E., "Monitoring and Characterizing Seasonal Drought, Water Supply Pattern and Their Impact on Vegetation Growth Using Satellite Soil Moisture Data, GRACE Water Storage and In-situ Observations." AGU Fall Meeting Abstracts NH51E-1947, Dec. 2015
- PA107- Kishore P., **Velicogna I.**, Sutterley T., "Sudden stratospheric warmings observed in the last decade by satellite measurements and reanalysis." AGU Fall Meeting Abstracts SA41B-2345, Dec. 2015
- PA106- Mohajerani Y., **Velicogna I.**, van den Broeke MR, Fettweis X., "Reducing Uncertainties in Greenland Surface Mass Balance Using IceBridge and ICESat Altimetry, GRACE Data and Regional Atmospheric Climate Model Outputs", AGU Fall Meeting Abstracts C23C-0803 Dec. 2015.
- PA105- Ciraci' E., **Velicogna I.**, Wahr J., Swenson S., "Mass Loss of Glaciers and Ice Caps From GRACE During 2002-2015". AGU Fall Meeting Abstracts C13B-0804, Dec. 2015.
- PA104- Lim LK, SD. Schubert, SMJ Nowicki, JN Lee, AM Molod, RI Cullather, B Zhao, **I. Velicogna**, "Summer Climate Responses to Atmospheric Teleconnections and Greenland Ice Mass Variations in the Last Four Decades from the MERRA-2 Reanalysis" AGU Fall meeting, Abstract A13C-0352 CA, Dec. 2015.
- PA103- Zhao M., A G., Velicogna J., Kimball, J., "Monitoring California Drought And Its Impact On

Ecosystems Using GRACE And MODIS Data.” AGU Chapman Conference, Abstract T-14, Irvine CA, Apr 2015.

PA102-**Velicogna I.**, " Using GRACE to improve surface mass balance estimates”. Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Invited Speaker Jan. 2015.

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PA101-**Kishore P., Velicogna I., TC Sutterley, Van de Broeke M.**, "Characterizing dominant climatic oscillations in Antarctic surface mass balance", AGU Fall Meeting Abstracts 1, 0382, Dec. 2014.

PA100-**Velicogna I., TC Sutterley, ER Ivins, MR van den Broeke**, “Improved GIA correction yields larger Antarctic mass loss”, AGU Fall Meeting Abstracts 1, 0343, Dec. 2014.

PA99-**Levine PA, C De Linage, I Velicogna, JT Randerson**, “Global spaceborne assessment of the relationship between terrestrial water storage and evaporative demand”. AGU Fall Meeting Abstracts 1, 02, Dec. 2014.

PA98-**Velicogna I., JS Kimball, Y Kim**, “Water Control on Vegetation Growth Pattern in Eurasia from GRACE”. AGU Fall Meeting Abstracts 1, 01, Dec. 2014.

PA97-**Ciraci E., I Velicogna, EJ Rignot, J Mouginot, MR van den Broeke**, 'Mass balance of the Canadian Arctic Archipelago using a combination of remote sensing and climate modeling techniques. AGU Fall Meeting Abstracts 1, 0297, Dec. 2014.

PA96-**Velicogna I., CW Hsu**, “Regional sea level variability from ice sheets, glaciers and land hydrology”. AGU Fall Meeting Abstracts 1, 03, Dec. 2014.

PA95-**Sutterley TC, I Velicogna, EJ Rignot, J Mouginot, T Flament, M. van den Broeke**, “Recent Changes in Ices Mass Balance of the Amundsen Sea Sector” AGU Fall Meeting Abstracts 1, 0315, Dec. 2014.

PA94-**Zhao M., I Velicogna, SC Swenson, JS Kimball**, “Understanding regional variations in TWS in Eurasia using GRACE time variable gravity data and CLM 4.5 output products”, AGU Fall Meeting Abstracts 1, 05, Dec. 2014.

PA93-**Bhanja SN, A Mukherjee, M Rodell, I Velicogna, K Pangaluru**, “Regional groundwater storage changes in the Indian subcontinent: The role of anthropogenic activities”, AGU Fall Meeting Abstracts 1, 0533, Dec. 2014.

PA92-**Hsu, CW., Velicogna, I., Rignot, E., Wahr, J.** “Regional Sea Level Variations from GRACE, InSAR and a Regional Atmospheric Climate Model Output Products” AGU fall meeting, San Francisco, CA, Dec. 2014

PA91-**Velicogna I.**, "Improving constraints on Greenland surface mass balance using GRACE” Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2014

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PA90-**Velicogna I., TC Sutterley, H Save**, “Acceleration of ice sheet mass losses from GRACE: trends and uncertainties”, AGU Fall Meeting Abstracts 1, 07, Dec. 2013.

PA89-**Kimball JS, Y Kim, K Zhang, K Didan, I Velicogna, KC McDonald**, “Satellite Detection and Attribution of Divergent Northern Vegetation Growth Responses to Lengthening Non-Frozen Seasons”. AGU Fall Meeting Abstracts 1, 05, Dec. 2013.

PA88-**Sutterley TC, I Velicogna, BM Csatho, MR van den Broeke, JM Wahr**, “Using GRACE measurements of time variable gravity, elevation changes from ICESat, OIB and ENVISAT and surface mass balance outputs from RACMO to improve ice mass balance estimates”, AGU Fall Meeting Abstracts 1, 0515, Dec. 2013.

PA87-**Hsu, CW., Velicogna, I. Rignot, E., Wahr, J., van den Broeke, M.** “Ice sheets and land water mass contributions to the sea level fingerprint from GRACE, InSAR, and a regional climate model output.” AGU Fall Meeting Abstracts 1, 0947,, San Francisco, CA, Dec. 2013

PA86-Kishore P., **Velicogna I.**, Tyler C Sutterley, Van de Broeke MR., "Periodic signals in the RACMO2 SMB extracted by Intrinsic mode functions", GRACE Science Team Meeting, Austin, Texas, Oct. 2013.

PA85-Kishore P., **Velicogna I.**, Tyler C Sutterley, Van de Broeke MR., "Periodic signals observed in the GRACE SMB time series over Greenland and Antarctica by the IMF analysis", AGU Fall Meeting Abstracts 1, 0760, San Francisco, Dec. 2013.

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PA84-**Velicogna I.**, "Spatial pattern in Greenland and Antarctica Ice mass loss Acceleration". AGU Fall Meeting Abstracts 1, 04, Dec. 2012.

PA83-Tong J., **I Velicogna**, JS Kimball, "Temperature and water control on vegetation productivity in Eurasia", AGU Fall Meeting Abstracts 1, 0967, Dec. 2012.

PA82-Kishore, P., **Velicogna I.**, Monaghan A. J., and Bromwich D.H., "Spectral analysis of impact of Quasi Biennial Oscillation on Antarctica net precipitation using global reanalysis datasets", AGU Fall Meeting Abstracts 1, 0709, Dec. 2012.

PA81-Leuliette EW, ME Tamisiea, **I Velicogna**, EJ Rignot, J Carton, WH Smith, "Multidecadal Signals in the Sea Level Budget", AGU Fall Meeting Abstracts 1, 08, Dec. 2012.

PA80-Chen Y., JT Randerson, DC Morton, RS DeFries, GJ Collatz, **I. Velicogna**, J. Famiglietti, "Sea surface temperatures and terrestrial water storage provide early warning information about fire season severity in the Amazon", AGU Fall Meeting Abstracts 1, 0499, Dec. 2012.

PA79-Sutterley TC, **I Velicogna**, EJ Rignot, MR van den Broeke, BM Csatho, "Improving accuracy of glacial isostatic adjustment models and ice mass balance using GRACE, InSAR, altimetry, and regional atmospheric climate model output", AGU Fall Meeting Abstracts 1, 0879, Dec. 2012.

PA78-Wahr J., V Barletta, S Bettadpur, R Forsberg, M Horwath, ER Ivins, **I. Velicogna**, "A group intercomparison of GRACE Antarctic and Greenland ice loss estimates, as part of the Ice Mass Balance Inter-comparison Exercise (IMBIE)", AGU Fall Meeting Abstracts 1, 03, Dec. 2012.

PA77-Hsu, CW., **Velicogna I.**, Wahr, J., van den Broeke, M., I. Rignot, E., "Ice sheets and land water mass contributions to interannual and long term regional sea level from GRACE, Insar and regional climate model output" AGU falling meeting, San Francisco, CA, Dec. 2012

PA76-**Velicogna I.**, "Status and update on time-variable gravity observations of ice sheet mass balance with GRACE: precision and limitations ESA-CliC-EGU Earth Observation and Cryosphere Science Meeting, Rome, Nov. 2012.

PA75-Sasgen I., JL Bamber, M van den Broeke, L Sandberg Sørensen, **I. Velicogna**, "On regional ice sheet mass balance from GRACE, the mass budget method, and ICESat" EGU General Assembly Conference Abstracts 14, 8312, April 2012

PA74-**Velicogna I.**, "Analysis of GRACE ice mass balance estimates", NASA/ESA International Mass Balance Inter-comparison Experiment (IMBIE) meeting, Oxford, UK, Mar. 2012.

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PA73-**Velicogna I.**, Rignot, E., van den Broeke, M., Mouginit, J., Csatho, B., "Using GRACE and other independent observations to generate extended ice sheet mass balance records and bridge future data gaps", AGU Fall Meeting Abstracts 1, 04, Dec. 2011.

PA72-Rignot E, **I Velicogna**, J Mouginit, B Scheuchl, MR van den Broeke, "Revised mass budget of hot spots in Greenland and Antarctica using IceBridge and other data", AGU Fall Meeting Abstracts 1, 07, Dec. 2011

PA71-Tamisiea ME, **I Velicogna**, E Rignot, "Sea level variability caused by changing Antarctic and Greenland mass loss" AGU Fall Meeting Abstracts 1, 0813, Dec. 2011

PA70-Kishore P., **Velicogna I.**, and Sean Swenson, "Seasonal and inter-annual mass variability in Antarctica from GRACE", AGU Fall Meeting Abstracts 1, 0763, Dec. 2011.

PA69-Tong J., **I Velicogna**, T Zhang, JS Kimball., "Increase in groundwater storage in discontinuous permafrost areas in Eurasia and impact on vegetation productivity", AGU Fall Meeting

Abstracts 1, 0836, Dec. 2011.

PA68-Sutterley TC, **I Velicogna**, ER Ivins, EJ Rignot, MR van den Broeke, “Evaluation of postglacial rebound models combining GRACE, InSAR, regional atmospheric climate modeling and radar altimetry data”, AGU Fall Meeting Abstracts 1, 0798, Dec. 2011.

PA67-Rodell M., JS Famiglietti, **I Velicogna**, SC Swenson, DP Chambers, “Monitoring global freshwater resources with GRACE”, AGU Fall Meeting Abstracts 1, 02, Dec. 2011.

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PA66-Velicogna I., J. Wahr, ‘Status and update on time-variable gravity observations of ice sheet mass balance with GRACE: precision and limitations’, AGU Fall Meeting Abstracts 1, 0496, Dec. 2010.

PA65-Famiglietti J., M Rodell, SC Swenson, DP Chambers, K Voss, M Lo, **I. Velicogna**, “Emerging Trends in Freshwater Availability from GRACE”, AGU Fall Meeting Abstracts 1, 01, Dec. 2010.

PA64-Famiglietti J., DP Chambers, M Rodell, TH Syed, SC Swenson, **I. Velicogna**, “Indicators of Water Cycle Acceleration from GRACE and NASA NEWS Datasets”, AGU Fall Meeting Abstracts 1, 04, Dec. 2010.

PA63-Kishore P., **Velicogna I.**, "Global distribution of water vapor observed by COSMIC GPS RO: Comparison with GPS radiosonde, NCEP and JRA-25 reanalysis datasets", Invited talk at AGU fall meeting, San Francisco, CA, Dec. 2010.

PA62-Kishore P., **I Velicogna**, SC Swenson, AJ Monaghan , ‘Accuracy of Antarctica inter-annual mass variability from GRACE’, AGU Fall Meeting Abstracts 1, 0564, Dec. 2010.

PA61-Tong J., **I Velicogna**, T Zhang, JS Kimball, MA Rawlins, KC McDonald, “Intensification of hydrological process in permafrost regions and correlation with ecological processes from multi-sensor satellite observations and in-situ measurements”, AGU Fall Meeting Abstracts 1, 07, Dec. 2010.

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PA60-Velicogna I., E Rignot, ‘Above-linear increase in Greenland and Antarctica ice mass loss’ Eos Trans. AGU Fall Meeting Abstracts 1, 08, Dec. 2009.

PA59-Rignot E., MN Koppes, **I Velicogna**, “On the role of submarine melting of tidewater glaciers in driving the Greenland ice sheet out of balance”, AGU Fall Meeting Abstracts 1, 02, Dec. 2009.

PA58-Kishore P., **I Velicogna**, SC Swenson, “ Improved estimates of Antarctica seasonal and inter-annual ice mass variability from GRACE”, AGU Fall Meeting Abstracts 1, 0726, Dec. 2009.

PA57-Famiglietti J., DP Chambers, R Nerem, M Rodell, SC Swenson, I. Velicogna, “Trends in River Basin, Groundwater and Global Water Storage from GRACE”, AGU Fall Meeting Abstracts 1, 03, Dec. 2009.

PA56-Rodell M., BF Zaitchik, B Li, JD Bolten, R Houborg, **I Velicogna**, “Hydrologic Applications of GRACE Terrestrial Water Storage Data”, AGU Fall Meeting Abstracts 1, 05, Dec. 2009.

PA55-Rignot E., **Velicogna I.**, “Acceleration rates of Antarctic and Greenland ice sheet mass loss from time-variable ice motion, surface mass balance and gravity”, AGU Fall Meeting Abstracts 1, 01, Dec. 2009.

PA54-van den Broeke MR, JL Bamber, J Ettema, EJ Rignot, EJ Schrama, **I. Velicogna**,” Towards resolving recent Greenland mass loss, AGU Fall Meeting Abstracts 1, 02, Dec. 2009.

PA53-Tong J, **I Velicogna**, MA Rawlins, KC McDonald, JS Kimball, “Correlations between Eurasia terrestrial water cycle and boreal drought derived from multi-sensor satellite observations and in-situ data” AGU Fall Meeting Abstracts 1, 0332, Dec. 2009.

PA52-Wahr J, **I Velicogna**, A Paulson, “Glacial Isostatic Adjustment as a Source of Noise for the Interpretation of GRACE Data”, AGU Spring Meeting Abstracts 1, 01, April 2009

PA51-Chambers D, J Famiglietti, **I Velicogna**, RS Nerem, “The global water cycle 2003-2008:

Implications for long-period sea level change”, EGU General Assembly Conference Abstracts 11, 10107, April 2009

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PA50-**Velicogna I**, E Ivins, E Rignot, “Constraints on Accumulation and Postglacial Rebound from GRACE and InSAR”, AGU Fall Meeting Abstracts 1, 03, Dec. 2008.

PA49-**Velicogna I**, Wahr J., “Greenland and Antarctic mass balance from GRACE”, AGU Fall Meeting Abstracts 1, 04, Dec. 2008.

PA48-Solarczyk RI, **I Velicogna**, M Rawlins, K McDonald, J Kimball, “Eurasia terrestrial water storage changes and boreal drought from multi-sensor satellite observations, in-situ data” AGU Fall Meeting Abstracts 1, 0698, Dec. 2008.

PA47-Goteti G, J Famiglietti, D Chambers, S Swenson, J Wahr, **I Velicogna**, “Emerging Trends in Terrestrial and Global Water Storage from GRACE”, AGU Fall Meeting Abstracts 1, 05, Dec. 2008.

---2007

PA46-**Velicogna I.**, Wahr J., Rignot E., ‘Recent results from GRACE in Antarctica and Greenland: comparison with Insar mass balance estimates’. Eos Trans. AGU, 88(52), Fall Meeting Abstract G33C-0006, San Francisco, CA, Dec 2007.

PA45-Wahr J., D Smeed, M Shaltout, E Leuliette, S Swenson, T Urban, **I. Velicogna**, “Seasonal and Interannual Variability of the Red Sea”, AGU Fall Meeting Abstracts 1, 0618, Dec. 2007.

PA44-Smith AE, RE Bell, M Studinger, **I Velicogna**,” New Antarctic Bedrock and Moho Topography Models from GRACE: Implications for the Cryosphere”, AGU Fall Meeting Abstracts 1, 0084, Dec. 2007.

PA43-Wahr J., **I Velicogna**, S Swenson, “Secular Trends in GRACE Data”, AGU Fall Meeting Abstracts 1, 02, Dec. 2007.

PA42-Rodell M., JS Famiglietti, BF Zaitchik, **I Velicogna**, “GRACE Applied to Terrestrial Hydrology”, AGU Fall Meeting Abstracts 1, 03, Dec. 2007.

PA41-**Velicogna I.**, Wahr J. ‘Seasonal and long term ice mass variations from GRACE’. IUGG, Perugia Italy, Jul 2007.

PA40-Bentley CG, RH Thomas, **I Velicogna**, “Ice” Division of Early Warning and Assessment (DEWA), United Nations Environment , 2007

PA39-Smith AE, RE Bell, **I Velicogna**, M Studinger, “Methods for determining topography in data sparse regions of East Antarctica: A Keystone in a Changing World”, Online Proceedings for the 10th, 2007.

PA38-Wahr J., S Swenson, **I Velicogna**, “Some hydrological and cryospheric applications of GRACE”, Proceedings of the GRACE Science Team Meeting and DFG SPP1257 Symposium, Feb 2007

---2006

PA37-Wahr J., **I Velicogna**, “Time variable gravity From GRACE provides new and independent measurements of long term and seasonal mass variations of the ice sheets”, AGU Fall Meeting Abstracts 1, 05, Dec. 2006.

PA36-Wahr J., S Swenson, **I Velicogna**, “Some Off-Beat Applications of GRACE Time-Variable Gravity Data”, AGU Fall Meeting Abstracts 1, 08, Dec. 2006.

PA35-Smith AE, **I Velicogna**, R Bell, “Unveiling the Antarctic Using GRACE Satellite Gravity Data”, AGU Fall Meeting Abstracts 1, 0815, Dec. 2006.

PA34-McKenna L., J Famiglietti, D Chambers, S Nerem, **I Velicogna**, F Frappart, “Mass Changes in Earth's Global Water Reservoirs from GRACE”AGU Fall Meeting Abstracts 1, 04, Dec. 2006.

PA33-Wahr J., S Swenson, **I Velicogna**, A Paulson, S Zhong., “Glacial Isostatic Adjustment and the GRACE Satellite Gravity Mission” AGU Fall Meeting Abstracts 1, 04, Dec. 2006.

- PA32-**Velicogna, I.**, John Wahr, Monitoring the mass variations of ice sheets from Gravity. International Symposium on Cryospheric indicators of global climate change, IGS , Cambridge 2006
- PA31-**Velicogna, I.**, John Wahr, GRACE measurements show large ice mass loss in Antarctica and Greenland EGU 2006.
- 2005
- PA31-Wahr J., S Swenson, **I Velicogna**, “Water Storage Estimates From GRACE Time-Variable Gravity Measurements”, AGU Fall Meeting Abstracts 1, 1382, Dec. 2005
- PA30-**Velicogna I.**, Wahr J., “Are the Ice sheets Losing Mass?”, AGU Fall Meeting Abstracts 1, 1158, Dec. 2005.
- PA29-**Velicogna, I.**, John Wahr, Ice Mass Balance in Greenland and Antarctica EGU 2005.
- 2004
- Wahr J., S Swenson, **I Velicogna**, “Water Balance Estimates From GRACE Measurements of Time-Variable Gravity”, AGU Fall Meeting Abstracts 1, 1159, Dec. 2004.
- PA28-**Velicogna I.**, J Wahr, E Hanna, P Huybrechts, “Snow Accumulation, Ice Discharge and Mass Balance in Greenland and Antarctica from GRACE” AGU Fall Meeting Abstracts 1, 05, Dec. 2004.
- PA27-**Velicogna I.**, J Wahr, “Separating GIA and Water Mass Redistribution Combining satellite and in situ Measurements: Preliminary Results From GRACE”, AGU Spring Meeting Abstracts 1, 02, April 2004.
- PA26-Wahr J., S Swenson, **I Velicogna**, “Hydrological information inferred from GRACE estimates of time-variable gravity” AGU Spring Meeting Abstracts 1, 04, April 2004.
- PA25-**Velicogna I.**, Wahr J., “Geodesy and the problem of ice sheets”, V Hotine-Marussi Symposium on Mathematical Geodesy, 264-273, 2004
- PA24-**Velicogna, I.**, and J. Wahr, J. McConnell, Time Variable Accumulation In Antarctica And Greenland From Grace Data, EGU 2004.
- PA23-**Velicogna, I.**, and J. Wahr, Ice Mass Balance From GRACE, Altimeter And Other Measurements: Preliminary Results From GRACE (Invited) , EGU 2004.
- PA22-Wahr, J. Swenson S, **Velicogna, I.**, Initial Time-Variable Gravity Results from GRACE,EGU 2004.
- 2003
- PA21-Wahr J., Swenson S., **Velicogna, I.**, “An Initial Look at GRACE Time-Variable Gravity Results”, AGU Fall Meeting Abstracts 1, 05, Dec. 2003.
- PA20-**Velicogna, I.**, J. Wahr, “Monitoring Polar Ice Change: First Results from GRACE”, AGU Fall Meeting Abstracts 1, 0836, Dec. 2003.
- PA19-Pérez-Gussinyé M., AR Lowry, AB Watts, **I Velicogna**, “On the recovery of effective elastic thickness using spectral methods: Examples from synthetic data and from the Fennoscandian Shield”, AGU Fall Meeting Abstracts 1, 0435, Dec. 2003.
- PA18-**Velicogna I.**, Wahr J., G Hajj, “Validation of GRACE time variable gravity against atmospheric mass variations”, EGS-AGU-EUG Joint Assembly 1, 6127, April 2003.
- PA17-Wahr J., **Velicogna, I.**, “Geodesy and the Polar ice Sheets”, EGS-AGU-EUG Joint Assembly 1, 3283, April 2003.
- PA16-Rodell M., **Velicogna, I.**, Walker J., Reichle R., “Assimilation of GRACE derived terrestrial water storage into a hydrological land surface model”, EGS-AGU-EUG Joint Assembly 1, 13397, April 2003.
- 2002
- PA15-Perez-Gussinye M., AR Lowry, AB Watts, **I Velicogna**, “How Accurately Do Spectral Methods Estimate Effective Elastic Thickness?”, AGU Fall Meeting Abstracts 1, 1240, Dec. 2002.



- PA14-**Velicogna I.**, J Wahr, “Validation of GRACE Time Variable Gravity Against Atmospheric Mass Variations”, AGU Fall Meeting Abstracts 1, 05, Dec. 2002.
- PA13-Wahr J., S Swenson, **I Velicogna**, P Milly, “Hydrological applications of the GRACE satellite gravity mission”, AGU Fall Meeting Abstracts 1, 0840, Dec. 2002.
- PA12-**Velicogna I.**, and J. Wahr, “Geodesy and the problem of ice sheets”, (Invited talk), V Hotine-Marussi Symposium on Mathematical Geodesy, IAG, Matera, Italy, 2002.
- PA11-**Velicogna I.**, J Wahr, “Post-glacial Rebound and Ice Mass Balance In Antarctica From Icesat/glas, grace and Gps”, EGS General Assembly Conference Abstracts 27, 255, April 2002.
- PA10-**Velicogna, I.**, and J. Wahr, Post glacial rebound and Earth’s viscosity structure from GRACE , XXVI EGS General Assembly, 2002.
- PA9-Swenson S., Wahr, J., Velicogna, I. Milly, P.C.D., “Large-Scale Hydrology Inferred from GRACE Estimates of Time-Variable Gravity” (Invited talk), XXVI EGS General Assembly, 2002.
- PA8-J. Wahr and **I. Velicogna**, “What might GRACE contribute to studies of post glacial rebound and ice sheet mass balance?” ISSI Workshop Earth Gravity Field from Space, Bern, Swiss, 2002
- 2001
- PA7-**Velicogna I.**, J Wahr, “Potential problems with the use of gravimeter data for GRACE Cal/Val”, AGU Fall Meeting Abstracts 1, 0242, Dec. 2001.
- PA6-**Velicogna, I.**, and J. Wahr, “Correlation of on land gravity measurements with GRACE gravity measurements of hydrologic mass variations’, EOS Trans. AGU, 2001.
- PA5-Watkins M., T. Gruber, B. Srinivas, **I. Velicogna**, V. Zlotnicki, “Calibration and Validation of the New Gravity Missions”, AGU Fall Meeting Abstracts 1, 04, Dec. 2001.
- PA4-Wahr J., S. Jayne, S. Swenson, **I. Velicogna**, “Satellite Measurements of Time Variable Gravity: What Can They Tell Us About the Earth?”, EOS Trans. AGU, 2001.
- PA3-**Velicogna, I.**, and J. Wahr, “Post-glacial rebound and ice mass balance in Antarctica from ICE-Sat/GLAS, GRACE and GPS measurements”, ANTEC workshop, Siena, Italy, 2001.
- PA2-**Velicogna, I.**, and J. Wahr, “Determination of post glacial rebound and ice mass balance from ICESAT/GLAS, GRACE and GPS vertical velocities (invited)”, XXVI EGS General Assembly, 2001.
- PA1-Lowry, A.R., **I. Velicogna**, and B.J. Douglas, “Lithospheric viscosity from isostatic response, geodesy and xenolith data”, XXVI EGS General Assembly, 2001.

### Conference Abstracts (since 2001)

#### ---2018

- CA175- **Velicogna I.**, A G., Zhao M., Kimball J., Coilliander A., ‘Spatio/temporal correspondence between vegetation productivity and surface soil moisture.’ SMAP Science Team Meeting, Arcadia, CA, Oct 2018.
- CA174- Mohajerani Y., **Velicogna I.**, Rignot E., ‘Optimized Basin-Scale GRACE Harmonic Processing and Inter-comparison of GRACE Gravity Solutions in Antarctica’, GRACE Science Team Meeting, Potzdam, Germany, Oct 2018.
- CA173- **Velicogna I.**, ‘Time-variable gravity studies of ice sheets and glacier mass balance.’ GRACE Science Team Meeting, Potzdam, Germany, Oct 2018.
- CA172- Sutterley T., **Velicogna I.**, Hsu CW, ‘Uncertainties in ice sheet mass balance in Greenland and Antarctica from GRACE time-variable gravity.’ GRACE Science Team Meeting, Potzdam, Germany, Oct 2018.
- CA171- Zhao M., A G., **Velicogna I.**, ‘Drought Monitoring and Impact Assessment using GRACE’, GRACE Science Team Meeting, Potzdam, Germany, Oct 2018.

- CA170- **Velicogna I.**, 'Contribution of High Mountain Asia glacier changes to river basin hydrology using GRACE and other data', High Mountain Asia Science Team Meeting Seattle, WA, Mar 2018.
- CA169- **Velicogna I.**, 'Quantifying and reducing uncertainty in future global and local sea-level estimates: linking physics, observations, and risk analysis to inform climate adaptation'. Nasa Sea level Team Meeting, San Diego, Mar 2018.
- CA168- **Velicogna I.**, Mohajerani Y., Sutterley T., Glacier mass balance and surface mass balance evaluation with laser altimetry and other data.' Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan 2018.

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- CA167- Ciraci E., **Velicogna I.**, Fettweis X., 'Mass Balance of Novaya Zemlya Archipelago from 2002 to Present' American Geophysical Union Fall Meeting, ABSTRACT C41B-0392, New Orleans, Louisiana, Dec 2017.
- CA166- Mohajerani Y., **Velicogna I.**, Sutterley T., Rignot E., 'Regionally Optimized GRACE Processing and Inter-comparison on the Antarctic Ice Sheet', American Geophysical Union Fall Meeting, ABSTRACT G31B-0408, New Orleans, Louisiana, Dec 2017.
- CA165- Kishore P., **Velicogna I.**, Ciraci E., Mohajerani Y., 'Evaluating the High Asia Reanalysis (HAR) using Gauge-based and Satellite Precipitation Data over High Mountain Asia', American Geophysical Union Fall Meeting, ABSTRACT H43D-1975, New Orleans, Louisiana, Dec 2017.
- CA164- Hsu CW., **Velicogna I.**, 'On the Impact of Sea Level Fingerprints on the Estimation of the Meridional Geostrophic Transport in the Atlantic Basin.' American Geophysical Union Fall Meeting, ABSTRACT A53D-1495, New Orleans, Louisiana, Dec 2017.
- CA163- **Velicogna I.**, A G., Ciraci E., Grogan D., Lammers R., 'Partitioning of the water budget in the main river basins in High Mountain Asia with GRACE, model output, and other observations.' American Geophysical Union Fall Meeting, ABSTRACT C41F-04, New Orleans, Louisiana, Dec 2017.
- CA162- Sutterley T., **Velicogna I.**, Neumann T., Markus T., Antarctic surface elevation and slope from multi-mission lidar mapping.' American Geophysical Union Fall Meeting, ABSTRACT C51A-0328, New Orleans, Louisiana, Dec 2017.
- CA161- Zhao M., **Velicogna I.**, Kimball J., 'Characterizing ecosystem response to water supply changes inferred from GRACE drought severity index and surface soil moisture anomalies from ESA CCI and SMAP.' American Geophysical Union Fall Meeting, ABSTRACT H23B-1729, New Orleans, Louisiana, Dec 2017.
- CA160- Zhuoya He., **Velicogna I.**, Hsu CW., Rignot E., Mougnot J., Scheuchl B., Fettweis X., van den Broeke M., 'Improved regional sea-level estimates from Ice Sheets, Glaciers and land water storage using GRACE time series and other data.' American Geophysical Union Fall Meeting, ABSTRACT OS22A-07, New Orleans, Louisiana, Dec 2017.
- CA159- Shepherd A., Ivins E., Smith B., **Velicogna I.**, et al. 'Trends in ice sheet mass balance, 1992 to 2017.' American Geophysical Union Fall Meeting, ABSTRACT G23B-01, New Orleans, Louisiana, Dec 2017.
- CA158- A G., **Velicogna I.**, Kimball J., Du J., Kim Y., Colliander A., Njoku E., "Satellite Soil Moisture and Water Storage Observations Identify Early and Late Season Water Supply Influencing Plant Growth in the Missouri Watershed." AGU Fall Meeting Abstract H21I-1593, New Orleans, Dec. 2017.
- CA157- **Velicogna I.**, A G., Zhao M., 'Characterization of regional drought impacts using multiple

satellite observations.' SMAP Science Team Meeting, Boston, MA, Oct 2017.

- CA156 - Hsu, CW, **Velicogna, I.**, Improved regional sea-level estimates from present day mass fluxes from Ice Sheets, Glaciers and land water using GRACE. Oral PO53E-05, Ocean Science Meeting.
- CA155- Mohajerani Y., **Velicogna I.**, Sutterley T., 'Optimization of Spherical Cap Mascon Processing on the Ice Sheets for the GRACE and GRACE-FO Missions' Canadian Geophysical Union (CGU), and the Canadian Society for Agricultural and Forest Meteorology (CSAFM), Niagara Falls, Canada, May 2017.
- CA154- **Velicogna I.**, 'Contribution of High Mountain Asia glacier changes to river basin hydrology using GRACE and other data'. Chinese Academy of Sciences(CAS)-NASA Workshop on Earth Observation for Glacier Changes in High Mountain Asia, Juneau, AK, May 2017.
- CA153- **Velicogna I.**, 'Evaluation of Greenland surface mass balance models using GRACE, ICESat-1 and OIB altimetry data.' Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan 2017.

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- CA152- A G., **Velicogna I.**, Kimball J., Kim Y., Colliander A., Njoku E., "Characterizing Seasonal Drought, Water Supply Pattern and Their Impact on Vegetation Growth Using Satellite Soil Moisture Data, GRACE Water Storage and Precipitation Observations." AGU Fall Meeting Abstracts H43O-06, San Francisco, CA, Dec. 2016
- CA151- Mohajerani Y., **Velicogna I.**, "Optimization of Spherical Cap Mascon Processing on the Ice Sheets for the GRACE and GRACE-FO Missions." AGU Fall Meeting Abstracts G13A-1092, San Francisco, CA, Dec 2016.
- CA150- Hsu CW., **Velicogna I.**, "Terrestrial water cycle induced meridional overturning circulation variability over the Atlantic Ocean." AGU Fall Meeting Abstracts GC33C-1252, San Francisco, CA, Dec 2016.
- CA149 **Velicogna I.**, Sutterley T., A G., van den Broeke MR., Ivins E., "Improved estimate of accelerated Antarctica ice mass loses from GRACE, Altimetry and surface mass balance from regional climate model output" AGU Fall Meeting Abstracts C33D-05, San Francisco, CA, Dec 2016.
- CA148- Ciraci' E., **Velicogna I.**, Fettweis X., van den Broeke MR., "High Arctic Glaciers and Ice Caps Ice Mass Change from GRACE, Regional Climate Model Output and Altimetry." AGU Fall Meeting Abstracts C13D-0861, San Francisco, CA, Dec 2016.
- CA1347- Sutterley T., **Velicogna I.**, Fettweis X., van den Broeke MR, "Surface mass balance model evaluation from satellite and airborne lidar mapping." AGU Fall Meeting Abstracts C12B-05, San Francisco, CA, Dec. 2016
- CA146- Kishore P., Ciraci' E., **Velicogna I.**, "Hydrological impact on glacier melt over Asian basins". AGU Fall Meeting Abstracts C11C-0796, San Francisco, CA, Dec. 2016
- CA145- Zhao M., A G., **Velicogna I.**, Kimball, J., "Understanding the time-lag effect of terrestrial ecosystem response to drought: a regional case study of the 2000s Millennium Drought in Australia". AGU Fall Meeting Abstracts B33F-0690, San Francisco, CA, Dec. 2016
- CA1344- **Velicogna I.**, "Mass balance of Ice Sheets, Glaciers and Ice from GRACE and other data." GRACE Science Team Meeting, Potsdam, Germany, Oct 2016.
- CA1343- **Velicogna I.**, " Evaluation of Greenland surface mass balance models using GRACE and OIB time series." Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2016.

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- CA142- Khazendar A., Rignot E., Schroeder D., Seroussi H., Scheuchl B., Sutterley T., **Velicogna I.**, "Direct Observations of Rapid Basal Melting and Bed Topography in the Grounding Zones of

- the Dotson and Crosson Ice Shelves, West Antarctica". AGU Fall Meeting Abstracts C51E-08, Dec. 2015.
- CA141- **Sutterley T., Velicogna I.**, "Recent Greenland Thinning from Operation IceBridge ATM and LVIS Data". AGU Fall Meeting Abstracts C53C-0797, Dec. 2015
- CA140- **Velicogna I., Hsu CW., Ciraci' E., Sutterley T.**, "Improved estimates of global sea level change from Ice Sheets, glaciers and land water storage using GRACE". AGU Fall Meeting Abstracts G31A-1103, Dec. 2015
- CA139- **Hsu CW., Velicogna I.**, "Improved regional sea-level estimates from Ice Sheets, glaciers and land water storage using GRACE time series and other data". AGU Fall Meeting Abstracts G52A-04, Dec. 2015
- CA138 **Zhao M., A G., Velicogna I.,** Kimball, J., "Evolution and characterization of drought events from GRACE and other satellite and observation". AGU Fall Meeting Abstracts H41F-1388, Dec. 2015
- CA137- **A G., Velicogna I.,** Kimball J., Kim Y., Colliander A., Njoku E., "Monitoring and Characterizing Seasonal Drought, Water Supply Pattern and Their Impact on Vegetation Growth Using Satellite Soil Moisture Data, GRACE Water Storage and In-situ Observations." AGU Fall Meeting Abstracts NH51E-1947, Dec. 2015
- CA136- **Kishore P., Velicogna I., Sutterley T.**, "Sudden stratospheric warmings observed in the last decade by satellite measurements and reanalysis." AGU Fall Meeting Abstracts SA41B-2345, Dec. 2015
- CA135- **Mohajerani Y., Velicogna I.,** van den Broeke MR, Fettweis X., "Reducing Uncertainties in Greenland Surface Mass Balance Using IceBridge and ICESat Altimetry, GRACE Data and Regional Atmospheric Climate Model Outputs", AGU Fall Meeting Abstracts C23C-0803 Dec. 2015.
- CA134- **Ciraci' E., Velicogna I.,** Wahr J., Swenson S., "Mass Loss of Glaciers and Ice Caps From GRACE During 2002-2015". AGU Fall Meeting Abstracts C13B-0804, Dec. 2015.
- CA133- **Lim LK, SD. Schubert, SMJ Nowicki, JN Lee, AM Molod, RI Cullather, B Zhao, I. Velicogna,** "Summer Climate Responses to Atmospheric Teleconnections and Greenland Ice Mass Variations in the Last Four Decades from the MERRA-2 Reanalysis" AGU Fall meeting, Abstract A13C-0352 CA, Dec. 2015.
- CA132- **Velicogna I.**, "Observing Earth from Space." Twenty-seventh Annual Kavli Frontiers of Science Symposium, Irvine CA, Invited Speaker , Nov 2015.
- CA131- **Velicogna I.**, "Improved estimates to global sea level from Ice Sheets, glaciers and land water storage from GRACE." GRACE Science Team Meeting, Austin TX, Sep 2015.
- CA130- **Zhao M., A G., Velicogna I.,** Kimball, J., "Monitoring California Drought And Its Impact On Ecosystems Using GRACE And MODIS Data." AGU Chapman Conference, Abstract T-14, Irvine CA, Apr 2015.
- CA129-**Velicogna I.**, "Using GRACE to improve surface mass balance estimates". Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Invited Speaker, Jan. 2015
- 2014
- CA128-**Velicogna I.**, "Understanding spatial and temporal variability of sea level rise'. San Francisco, CA, Invited Speaker, Dec 2014.
- CA127-**Kishore P., Velicogna I.,** Tyler Sutterley, Van de Broeke M., "Characterizing dominant climatic oscillations in Antarctic surface mass balance", AGU Fall Meeting Abstracts 1, 0382, Dec. 2014.
- CA126-**Velicogna I.,** TC Sutterley, ER Ivins, MR van den Broeke, "Improved GIA correction yields larger Antarctic mass loss", AGU Fall Meeting Abstracts 1, 0343, Dec. 2014.
- CA125-**Levine PA, C De Linage, I Velicogna, JT Randerson,** "Global spaceborne assessment of the relationship between terrestrial water storage and evaporative demand". AGU Fall Meeting

Abstracts 1, 02, Dec. 2014.

- CA124-**Velicogna I.**, JS Kimball, Y Kim, “Water Control on Vegetation Growth Pattern in Eurasia from GRACE”. AGU Fall Meeting Abstracts 1, 01, Dec. 2014.
- CA123-Ciraci E., **I Velicogna**, EJ Rignot, J Mouginot, MR van den Broeke, ‘Mass balance of the Canadian Arctic Archipelago using a combination of remote sensing and climate modeling techniques. AGU Fall Meeting Abstracts 1, 0297, Dec. 2014.
- CA122-**Velicogna I.**, CW Hsu, “Regional sea level variability from ice sheets, glaciers and land hydrology”. AGU Fall Meeting Abstracts 1, 03, Dec. 2014.
- CA121-Sutterley TC, **I Velicogna**, EJ Rignot, J Mouginot, T Flament, M. van den Broeke, “Recent Changes in Ices Mass Balance of the Amundsen Sea Sector” AGU Fall Meeting Abstracts 1, 0315, Dec. 2014.
- CA120-Zhao M., **I Velicogna**, SC Swenson, JS Kimball, “Understanding regional variations in TWS in Eurasia using GRACE time variable gravity data and CLM 4.5 output products”, AGU Fall Meeting Abstracts 1, 05, Dec. 2014.
- CA119-Bhanja SN, A Mukherjee, M Rodell, **I Velicogna**, K Pangaluru, “Regional groundwater storage changes in the Indian subcontinent: The role of anthropogenic activities”, AGU Fall Meeting Abstracts 1, 0533, Dec. 2014.
- CA118-Hsu, CW., **Velicogna, I.**, Rignot, E., Wahr, J. “Regional Sea Level Variations from GRACE, InSAR and a Regional Atmospheric Climate Model Output Products” AGU fall meeting, San Francisco, CA, Dec. 2014
- CA117-**Velicogna I.**, "Improving constraints on Greenland surface mass balance using GRACE” Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2014

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- CA116-**Velicogna I.**, TC Sutterley, H Save, “Acceleration of ice sheet mass losses from GRACE: trends and uncertainties”, AGU Fall Meeting Abstracts 1, 07, Dec. 2013.
- CA115-Kimball JS, Y Kim, K Zhang, K Didan, **I Velicogna**, KC McDonald, “Satellite Detection and Attribution of Divergent Northern Vegetation Growth Responses to Lengthening Non-Frozen Seasons”. AGU Fall Meeting Abstracts 1, 05, Dec. 2013.
- CA114-Sutterley TC, **I Velicogna**, BM Csatho, MR van den Broeke, JM Wahr, “Using GRACE measurements of time variable gravity, elevation changes from ICESat, OIB and ENVISAT and surface mass balance outputs from RACMO to improve ice mass balance estimates”, AGU Fall Meeting Abstracts 1, 0515, Dec. 2013.
- CA113-Hsu, CW., **Velicogna, I.** Rignot, E., Wahr, J., van den Broeke, M. “Ice sheets and land water mass contributions to the sea level fingerprint from GRACE, InSAR, and a regional climate model output.” AGU Fall Meeting Abstracts 1, 0947,, San Francisco, CA, Dec. 2013
- CA112-Kishore P., **Velicogna I.**, Tyler C Sutterley, Van de Broeke MR., "Periodic signals in the RACMO2 SMB extracted by Intrinsic mode functions", GRACE Science Team Meeting, Austin, Texas, Oct. 2013.
- CA111-Kishore P., **Velicogna I.**, Tyler C Sutterley, Van de Broeke MR., "Periodic signals observed in the GRACE SMB time series over Greenland and Antarctica by the IMF analysis", AGU Fall Meeting Abstracts 1, 0760, San Francisco, Dec. 2013.
- CA110-Hsu, CW., **Velicogna I.**, Rignot, E., Wahr, J., van den Broeke, M. “Ice sheets and land water mass contributions to sea level fingerprint from GRACE, InSAR, and a regional climate model output”. GRACE science team meeting, Austin, Texas, Sep., 2013
- CA109-Hsu, CW., **Velicogna, I.** “Ice sheets and land water mass contributions to the sea level fingerprint from GRACE, InSAR, and a regional climate model output.” The sleeping Giant: Measuring ocean ice interactions in Antarctica, Pasadena, CA, Sep. 2013
- CA108-Fernández-Prieto D., Hogg A., Bamber J., Baeseman J., Drinkwater M., Ryabinin V., Steffen

K., Dierking W., Duguay C., Gerland S., Rack W., Rignot E., Rott H., Scambos T., Schrama E., Shepherd E., Strozzi T., van den Broeke M., **Velicogna I.**, Zwally J., “Earth Observation And Cryosphere Science: The Way Forward”, Earth Observation and Cryosphere Sciences Conf. SP-712; 05/2013

CA107-**Velicogna I.**, “Mass balance of the Antarctic Ice Sheet”, Scientific Committee on Antarctic Research (SCAR) Antarctic Climate 2100 Scientific Research Program Workshop for “Quantification of Antarctic Climate Variability”. Castine, Maine, Sept. 2013.

CA106-**Velicogna I.**, “10 years of GRACE data: what have we learned?” Program for Arctic Regional Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2013

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CA105-**Velicogna I.**, Ice Sheet System Model (ISSM) Workshop, “Greenland and Antarctica ice mass changes from GRACE”. University of California Irvine, Irvine, CA, Dec. 2012.

CA104-**Velicogna I.**, “Spatial pattern in Greenland and Antarctica Ice mass loss Acceleration”. AGU Fall Meeting Abstracts 1, 04, Dec. 2012.

CA103-Tong J., **I Velicogna**, JS Kimball, “Temperature and water control on vegetation productivity in Eurasia”, AGU Fall Meeting Abstracts 1, 0967, Dec. 2012.

CA102-Kishore, P., **Velicogna I.**, Monaghan A. J., and Bromwich D.H., “Spectral analysis of impact of Quasi Biennial Oscillation on Antarctica net precipitation using global reanalysis datasets”, AGU Fall Meeting Abstracts 1, 0709, Dec. 2012.

CA101-Leuliette EW, ME Tamisiea, **I Velicogna**, EJ Rignot, J Carton, WH Smith, “Multidecadal Signals in the Sea Level Budget”, AGU Fall Meeting Abstracts 1, 08, Dec. 2012.

CA100-Chen Y., JT Randerson, DC Morton, RS DeFries, GJ Collatz, **I. Velicogna**, J. Famiglietti, “Sea surface temperatures and terrestrial water storage provide early warning information about fire season severity in the Amazon”, AGU Fall Meeting Abstracts 1, 0499, Dec. 2012.

CA99-Sutterley TC, **I Velicogna**, EJ Rignot, MR van den Broeke, BM Csatho, “Improving accuracy of glacial isostatic adjustment models and ice mass balance using GRACE, InSAR, altimetry, and regional atmospheric climate model output”, AGU Fall Meeting Abstracts 1, 0879, Dec. 2012.

CA98-Wahr J., V Barletta, S Bettadpur, R Forsberg, M Horwath, ER Ivins, **I. Velicogna**, “A group intercomparison of GRACE Antarctic and Greenland ice loss estimates, as part of the Ice Mass Balance Inter-comparison Exercise (IMBIE)”, AGU Fall Meeting Abstracts 1, 03, Dec. 2012.

CA97-Hsu, CW., **Velicogna I.**, Wahr, J., van den Broeke, M., I. Rignot, E., “Ice sheets and land water mass contributions to interannual and long term regional sea level from GRACE, InSAR and regional climate model output” AGU falling meeting, San Francisco, CA, Dec. 2012

CA96-**Velicogna I.**, ‘Status and update on time-variable gravity observations of ice sheet mass balance with GRACE: precision and limitations ESA-CliC-EGU Earth Observation and Cryosphere Science Meeting, Rome, Nov. 2012.

CA95-**Velicogna I.**, ‘Spatial pattern in Greenland and Antarctica Ice mass loss Acceleration’, GRACE Science Team Meeting, Potsdam, Germany, Sept. 2012.

CA94-Hsu, CW., **Velicogna I.**, Wahr, J., Rignot, E., Tamisiea, M. “Regional sea level variability from ice sheets and land water mass” GRACE science team meeting, Potsdam, Germany, Sep., 2012

CA93-Sasgen I., JL Bamber, M van den Broeke, L Sandberg Sørensen, **I. Velicogna**, “On regional ice sheet mass balance from GRACE, the mass budget method, and ICESat” EGU General Assembly Conference Abstracts 14, 8312, April 2012

CA92-**Velicogna I.**, ‘Analysis of GRACE ice mass balance estimates’, NASA/ESA International Mass Balance Inter-comparison Experiment (IMBIE) meeting, Oxford, UK, Mar. 2012.

CA91-**Velicogna I.**, Sutterley, T., Csatho, B., van den Broeke, M., Frederick, E., Krabill, B., ‘Comparison of GRACE and ICESat/ATM/IceBridge altimetry’, Program for Arctic Regional

Climate Assessment (PARCA) meeting, Baltimore, MD, Jan. 2012.

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- CA90-**Velicogna I.**, Rignot, E., van den Broeke, M., Mouginot, J., Csatho, B., ‘Using GRACE and other independent observations to generate extended ice sheet mass balance records and bridge future data gaps’, AGU Fall Meeting Abstracts 1, 04, Dec. 2011.
- CA89-Rignot E, **I Velicogna**, J Mouginot, B Scheuchl, MR van den Broeke, “Revised mass budget of hot spots in Greenland and Antarctica using IceBridge and other data”, AGU Fall Meeting Abstracts 1, 07, Dec. 2011
- CA88-Tamisiea ME, **I Velicogna**, E Rignot, “Sea level variability caused by changing Antarctic and Greenland mass loss” AGU Fall Meeting Abstracts 1, 0813, Dec. 2011
- CA87-Kishore P., **Velicogna I.**, and Sean Swenson, "Seasonal and inter-annual mass variability in Antarctica from GRACE",AGU Fall Meeting Abstracts 1, 0763, Dec. 2011.
- CA86-Tong J., **I Velicogna**, T Zhang, JS Kimball., “Increase in groundwater storage in discontinuous permafrost areas in Eurasia and impact on vegetation productivity”, AGU Fall Meeting Abstracts 1, 0836, Dec. 2011.
- CA85-Sutterley TC, **I Velicogna**, ER Ivins, EJ Rignot, MR van den Broeke, “Evaluation of postglacial rebound models combining GRACE, InSAR, regional atmospheric climate modeling and radar altimetry data”, AGU Fall Meeting Abstracts 1, 0798, Dec. 2011.
- CA84-Rodell M., JS Famiglietti, **I Velicogna**, SC Swenson, DP Chambers, “Monitoring global freshwater resources with GRACE”, AGU Fall Meeting Abstracts 1, 02, Dec. 2011.
- CA83-**Velicogna I.**, Tong J., Zhang T., Kimball J., ‘Increasing groundwater storage in discontinuous permafrost areas in the Lena river basin, Eurasia, detected from GRACE’. GRACE Science Team Meeting, Austin, TX, Aug. 2011.
- CA82-**Velicogna I.**, ‘Ice sheet mass balance, error sources and impact on sea level’. GRACE Science Team Meeting, Austin, TX, Aug. 2011.
- CA81-**Velicogna I.**, Kishore P., Rignot E., Xu Y., Menemenlis D. ‘Comparison of spatial and temporal variability of Greenland ice mass loss and sea surface temperature (SST) in the surrounding region’. International Glaciological Society meeting, San Diego, CA, Jun. 2011.
- CA80-**Velicogna I.**, GRACE monitoring of Greenland mass balance’, PARCA meeting, Baltimore, MD, Feb. 2011.

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- CA79-**Velicogna I.**, J. Wahr, ‘Status and update on time-variable gravity observations of ice sheet mass balance with GRACE: precision and limitations’, AGU Fall Meeting Abstracts 1, 0496, Dec. 2010.
- CA78-Famiglietti J., M Rodell, SC Swenson, DP Chambers, K Voss, M Lo, **I. Velicogna**, “Emerging Trends in Freshwater Availability from GRACE”, AGU Fall Meeting Abstracts 1, 01, Dec. 2010.
- CA77-Famiglietti J., DP Chambers, M Rodell, TH Syed, SC Swenson, **I. Velicogna**, “Indicators of Water Cycle Acceleration from GRACE and NASA NEWS Datasets”, AGU Fall Meeting Abstracts 1, 04, Dec. 2010.
- CA76-Kishore P., **Velicogna I.**, "Global distribution of water vapor observed by COSMIC GPS RO: Comparison with GPS radiosonde, NCEP and JRA-25 reanalysis datasets", Invited talk at AGU fall meeting, San Francisco, CA, Dec. 2010.
- CA75-Kishore P., **I Velicogna**, SC Swenson, AJ Monaghan , ‘Accuracy of Antarctica inter-annual mass variability from GRACE’, AGU Fall Meeting Abstracts 1, 0564, Dec. 2010.
- CA74-Tong J., **I Velicogna**, T Zhang, JS Kimball, MA Rawlins, KC McDonald, “Intensification of hydrological process in permafrost regions and correlation with ecological processes from multi-sensor satellite observations and in-situ measurements”, AGU Fall Meeting Abstracts 1, 07, Dec. 2010.

- CA73-Kishore P., **Velicogna I.**, and Sean Swenson., "Improved estimates of Antarctica surface pressure fields", GRACE Science team meeting, Helmholtz Center, Postdam, Germany, Nov. 2010.
- CA72-**Velicogna I.**, J. Tong ,T. Zhang, J Kimball, 'Intensification of hydrological process in permafrost regions and correlation with ecological processes from multi-sensor satellite observations, in-situ measurements'. GRACE Science Team Meeting, Potsdam Germany, Nov. 2010.
- CA71-**Velicogna I.**, Wahr J., 'Ice sheet mass balance with GRACE: precision and limitations'. GRACE Science Team Meeting, Potsdam Germany, Nov. 2010.
- CA70-**Velicogna I.**, E. Rignot, M. van den Broeke M., 'Acceleration and spatial patterns in Greenland and Antarctica ice mass loss from GRACE'. Polar Science Conference, Oslo Norway, Jun. 2010.
- 2009
- CA70-**Velicogna I.**, E Rignot, 'Above-linear increase in Greenland and Antarctica ice mass loss' Eos Trans. AGU Fall Meeting Abstracts 1, 08, Dec. 2009.
- CA69-Rignot E., MN Koppes, **I Velicogna**, "On the role of submarine melting of tidewater glaciers in driving the Greenland ice sheet out of balance", AGU Fall Meeting Abstracts 1, 02, Dec. 2009.
- CA68-Kishore P., **I Velicogna**, SC Swenson, " Improved estimates of Antarctica seasonal and inter-annual ice mass variability from GRACE", AGU Fall Meeting Abstracts 1, 0726, Dec. 2009.
- CA67-Famiglietti J., DP Chambers, R Nerem, M Rodell, SC Swenson, I. Velicogna, "Trends in River Basin, Groundwater and Global Water Storage from GRACE", AGU Fall Meeting Abstracts 1, 03, Dec. 2009.
- CA66-Rodell M., BF Zaitchik, B Li, JD Bolten, R Houborg, **I Velicogna**, "Hydrologic Applications of GRACE Terrestrial Water Storage Data", AGU Fall Meeting Abstracts 1, 05, Dec. 2009.
- CA65-Rignot E., **Velicogna I.**, "Acceleration rates of Antarctic and Greenland ice sheet mass loss from time-variable ice motion, surface mass balance and gravity", AGU Fall Meeting Abstracts 1, 01, Dec. 2009.
- CA64-van den Broeke MR, JL Bamber, J Ettema, EJ Rignot, EJ Schrama, I. Velicogna," Towards resolving recent Greenland mass loss, AGU Fall Meeting Abstracts 1, 02, Dec. 2009.
- CA63-Tong J, **I Velicogna**, MA Rawlins, KC McDonald, JS Kimball, "Correlations between Eurasia terrestrial water cycle and boreal drought derived from multi-sensor satellite observations and in-situ data" AGU Fall Meeting Abstracts 1, 0332, Dec. 2009.
- CA62-**Velicogna I.**, E. Rignot, 'Increase in Greenland ice mass loss from GRACE'. Nuuk Climate Days Invited Greenland, Aug. 2009.
- CA61-**Velicogna I.**, Ivins E., Rignot E., 'Improving GIA using multiple remote sensing data'. Joint DynaQlim/GGOS workshop Espoo, Finland, Jun. 2009
- CA60-Wahr J, **I Velicogna**, A Paulson, "Glacial Isostatic Adjustment as a Source of Noise for the Interpretation of GRACE Data", AGU Spring Meeting Abstracts 1, 01, April 2009
- CA59-Chambers D, J Famiglietti, **I Velicogna**, RS Nerem, "The global water cycle 2003-2008: Implications for long-period sea level change", EGU General Assembly Conference Abstracts 11, 10107, April 2009
- 2008
- CA58-**Velicogna I.**, E Ivins, E Rignot, "Constraints on Accumulation and Postglacial Rebound from GRACE and InSAR", AGU Fall Meeting Abstracts 1, 03, Dec. 2008.
- CA57-**Velicogna I.**, Wahr J., "Greenland and Antarctic mass balance from GRACE", AGU Fall Meeting Abstracts 1, 04, Dec. 2008.
- CA56-Solarczyk RI, **I Velicogna**, M Rawlins, K McDonald, J Kimball, "Eurasia terrestrial water storage changes and boreal drought from multi-sensor satellite observations, in-situ data" AGU Fall Meeting Abstracts 1, 0698, Dec. 2008.



- CA55-Goteti G, J Famiglietti, D Chambers, S Swenson, J Wahr, **I Velicogna**, “Emerging Trends in Terrestrial and Global Water Storage from GRACE”, AGU Fall Meeting Abstracts 1, 05, Dec. 2008.
- CA54-**Velicogna I.**, E. Ivins, E. Rignot, ‘Constraining accumulation and postglacial rebound combining GRACE and InSAR’. SCAR/IASC IPY, Russia, Jul. 2008.
- CA53-**Velicogna I.**, Rignot E., ‘Antarctic mass balance Constraining from GRACE and InSAR’, 5th International Workshop on Antarctic peninsula Climate Change, Irvine Jun. 2008.
- CA52-**Velicogna I.**, ”Ice and Sea Level Rise”, Environmental program on Global Change and Oceans, Irvine May 2008.
- CA51-**Velicogna I.**, Rignot E., Wahr J., ‘Recent results from GRACE in Antarctica and Greenland: comparison with InSAR mass balance estimates’, Program for Regional Climate Assessment (PARCA) Meeting, Boulder Feb 2008.
- 2007
- CA50-**Velicogna I.**, Wahr J., Rignot E., ‘Recent results from GRACE in Antarctica and Greenland: comparison with InSAR mass balance estimates’. Eos Trans. AGU, 88(52), Fall Meeting Abstract G33C-0006, San Francisco, CA, Dec 2007.
- CA49-Wahr J., D Smeed, M Shaltout, E Leuliette, S Swenson, T Urban, **I. Velicogna**, “Seasonal and Interannual Variability of the Red Sea”, AGU Fall Meeting Abstracts 1, 0618, Dec. 2007.
- CA48-Smith AE, RE Bell, M Studinger, **I Velicogna**,” New Antarctic Bedrock and Moho Topography Models from GRACE: Implications for the Cryosphere”, AGU Fall Meeting Abstracts 1, 0084, Dec. 2007.
- CA47-Wahr J., **I Velicogna**, S Swenson, “Secular Trends in GRACE Data”, AGU Fall Meeting Abstracts 1, 02, Dec. 2007.
- CA46-Rodell M., JS Famiglietti, BF Zaitchik, **I Velicogna**, “GRACE Applied to Terrestrial Hydrology”, AGU Fall Meeting Abstracts 1, 03, Dec. 2007.
- CA45-Smith AE, RE Bell, **I Velicogna**, M Studinger, “AB-1 Methods for determining topography in data sparse regions of East Antarctica” The 10th International Symposium on Antarctic Earth Sciences, Oct. 2007.
- CA44-**Velicogna I.**, ‘Recent results from GRACE in Antarctica and Greenland’. International GSTM + DFG - SPP Symposium, at GeoForschungsZentrum in Potsdam, Germany, Oct 2007
- CA43-**Velicogna I.**, ‘Ice mass variation from GRACE and ICESat’. ICESat Science Team Meeting, La Jolla, Oct 2007.
- CA42-**Velicogna I.**, Wahr J. ‘Seasonal and long term ice mass variations from GRACE’. IUGG, Perugia Italy, Jul 2007.
- CA41-Bentley CG, RH Thomas, **I Velicogna**, “Ice” Division of Early Warning and Assessment (DEWA), United Nations Environment , 2007
- CA40-Smith AE, RE Bell, **I Velicogna**, M Studinger, “Methods for determining topography in data sparse regions of East Antarctica: A Keystone in a Changing World”, Online Proceedings for the 10th, 2007.
- CA39-Wahr J., S Swenson, **I Velicogna**, “Some hydrological and cryospheric applications of GRACE”, Proceedings of the GRACE Science Team Meeting and DFG SPP1257 Symposium, Feb 2007
- 2006
- CA38-Wahr J., **I Velicogna**, “Time variable gravity From GRACE provides new and independent measurements of long term and seasonal mass variations of the ice sheets”, AGU Fall Meeting Abstracts 1, 05, Dec. 2006.
- CA37-Wahr J., S Swenson, **I Velicogna**, “Some Off-Beat Applications of GRACE Time-Variable Gravity Data”, AGU Fall Meeting Abstracts 1, 08, Dec. 2006.
- CA36-Smith AE, **I Velicogna**, R Bell, “Unveiling the Antarctic Using GRACE Satellite Gravity

- Data”, AGU Fall Meeting Abstracts 1, 0815, Dec. 2006.
- CA35-McKenna L., J Famiglietti, D Chambers, S Nerem, **I Velicogna**, F Frappart, “Mass Changes in Earth's Global Water Reservoirs from GRACE”  
AGU Fall Meeting Abstracts 1, 04, Dec. 2006.
- CA34-Wahr J., S Swenson, **I Velicogna**, A Paulson, S Zhong., “Glacial Isostatic Adjustment and the GRACE Satellite Gravity Mission” AGU Fall Meeting Abstracts 1, 04, Dec. 2006.
- CA33-**Velicogna, I.**, John Wahr, Monitoring the mass variations of ice sheets from Gravity. International Symposium on Cryospheric indicators of global climate change, IGS , Cambridge 2006
- CA32-**Velicogna, I.**, John Wahr, GRACE measurements show large ice mass loss in Antarctica and Greenland EGU 2006.
- 2005
- CA31-Wahr J., S Swenson, **I Velicogna**, “Water Storage Estimates From GRACE Time-Variable Gravity Measurements”, AGU Fall Meeting Abstracts 1, 1382, Dec. 2005
- CA30-**Velicogna I.**, Wahr J., “Are the Ice sheets Losing Mass?”, AGU Fall Meeting Abstracts 1, 1158, Dec. 2005.
- Velicogna, I.**, John Wahr, Ice Mass Balance in Greenland and Antarctica EGU 2005.
- 2004
- CA29-Wahr J., S Swenson, **I Velicogna**, “Water Balance Estimates From GRACE Measurements of Time-Variable Gravity”, AGU Fall Meeting Abstracts 1, 1159, Dec. 2004.
- CA28-**Velicogna I.**, J Wahr, E Hanna, P Huybrechts, “Snow Accumulation, Ice Discharge and Mass Balance in Greenland and Antarctica from GRACE” AGU Fall Meeting Abstracts 1, 05, Dec. 2004.
- CA27-**Velicogna I.**, J Wahr, “Separating GIA and Water Mass Redistribution Combining satellite and in situ Measurements: Preliminary Results From GRACE”, AGU Spring Meeting Abstracts 1, 02, April 2004.
- CA26-Wahr J., S Swenson, **I Velicogna**, “Hydrological information inferred from GRACE estimates of time-variable gravity” AGU Spring Meeting Abstracts 1, 04, April 2004.
- CA25-**Velicogna I.**, Wahr J., “Geodesy and the problem of ice sheets”, V Hotine-Marussi Symposium on Mathematical Geodesy, 264-273, 2004
- CA24-**Velicogna, I.**, and J. Wahr, J. McConnell, Time Variable Accumulation In Antarctica And Greenland From Grace Data, EGU 2004.
- CA23-**Velicogna, I.**, and J. Wahr, Ice Mass Balance From GRACE, Altimeter And Other Measurements: Preliminary Results From GRACE (Invited) , EGU 2004.
- CA22-Wahr, J. Swenson S, **Velicogna, I.**, Initial Time-Variable Gravity Results from GRACE,EGU 2004.
- 2003
- CA21-Wahr J., Swenson S., **Velicogna, I.**, “An Initial Look at GRACE Time-Variable Gravity Results”, AGU Fall Meeting Abstracts 1, 05, Dec. 2003.
- CA20-**Velicogna, I.**, J. Wahr, “Monitoring Polar Ice Change: First Results from GRACE”, AGU Fall Meeting Abstracts 1, 0836, Dec. 2003.
- CA19-Pérez-Gussinyé M., AR Lowry, AB Watts, **I Velicogna**, “On the recovery of effective elastic thickness using spectral methods: Examples from synthetic data and from the Fennoscandian Shield”, AGU Fall Meeting Abstracts 1, 0435, Dec. 2003.
- CA18-**Velicogna I.**, Wahr J., G Hajj, “Validation of GRACE time variable gravity against atmospheric mass variations”, EGS-AGU-EUG Joint Assembly 1, 6127, April 2003.
- CA17-Wahr J., **Velicogna, I.**, “Geodesy and the Polar ice Sheets”, EGS-AGU-EUG Joint Assembly 1, 3283, April 2003.

CA16-Rodell M., **Velicogna, I.**, Walker J., Reichle R., “Assimilation of GRACE derived terrestrial water storage into a hydrological land surface model”, EGS-AGU-EUG Joint Assembly 1, 13397, April 2003.

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CA15-Perez-Gussinye M., AR Lowry, AB Watts, **I Velicogna**, “How Accurately Do Spectral Methods Estimate Effective Elastic Thickness?”, AGU Fall Meeting Abstracts 1, 1240, Dec. 2002.

CA14-**Velicogna I.**, J Wahr, “Validation of GRACE Time Variable Gravity Against Atmospheric Mass Variations”, AGU Fall Meeting Abstracts 1, 05, Dec. 2002.

CA13-Wahr J., S Swenson, **I Velicogna**, P Milly, “Hydrological applications of the GRACE satellite gravity mission”, AGU Fall Meeting Abstracts 1, 0840, Dec. 2002.

CA12-**Velicogna I.**, and J. Wahr, “Geodesy and the problem of ice sheets”, (Invited talk), V Hotine-Marussi Symposium on Mathematical Geodesy, IAG, Matera, Italy, 2002.

CA11-**Velicogna I.**, J Wahr, “Post-glacial Rebound and Ice Mass Balance In Antarctica From Icesat/glas, grace and Gps”, EGS General Assembly Conference Abstracts 27, 255, April 2002.

CA10-**Velicogna, I.**, and J. Wahr, Post glacial rebound and Earth’s viscosity structure from GRACE , XXVI EGS General Assembly, 2002.

CA9-Swenson S., Wahr, J., Velicogna, I. Milly, P.C.D., “Large-Scale Hydrology Inferred from GRACE Estimates of Time-Variable Gravity” (Invited talk), XXVI EGS General Assembly, 2002.

CA8-J. Wahr and **I. Velicogna**, “What might GRACE contribute to studies of post glacial rebound and ice sheet mass balance?” ISSI Workshop Earth Gravity Field from Space, Bern, Swiss, 2002

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CA7-**Velicogna I.**, J Wahr, “Potential problems with the use of gravimeter data for GRACE Cal/Val”, AGU Fall Meeting Abstracts 1, 0242, Dec. 2001.

CA6-**Velicogna, I.**, and J. Wahr, “Correlation of on land gravity measurements with GRACE gravity measurements of hydrologic mass variations’, EOS Trans. AGU, 2001.

CA5-Watkins M., T. Gruber, B. Srinivas, **I. Velicogna**, V. Zlotnicki, “Calibration and Validation of the New Gravity Missions”, AGU Fall Meeting Abstracts 1, 04, Dec. 2001.

CA4-Wahr J., S. Jayne, S. Swenson, **I. Velicogna**, “Satellite Measurements of Time Variable Gravity: What Can They Tell Us About the Earth?”, EOS Trans. AGU, 2001.

CA3-**Velicogna, I.**, and J. Wahr, “Post-glacial rebound and ice mass balance in Antarctica from ICE-Sat/GLAS, GRACE and GPS measurements”, ANTEC workshop, Siena, Italy, 2001.

CA2-**Velicogna, I.**, and J. Wahr, “Determination of post glacial rebound and ice mass balance from ICESAT/GLAS, GRACE and GPS vertical velocities (invited)”, XXVI EGS General Assembly, 2001.

CA1-Lowry, A.R., **I. Velicogna**, and B.J. Douglas, “Lithospheric viscosity from isostatic response, geodesy and xenolith data”, XXVI EGS General Assembly, 2001.