Ian R. Joughin

Professional Preparation

University of Vermont	Electrical Engineering	B.S., 1986
University of Vermont	Electrical Engineering	M.S., 1990
University of Washington	Electrical Engineering	Ph.D., 1995

Appointments

2008-Present	Principal Engineer, Polar Science Center, APL, University of Washington
2004-2008	Senior Engineer, Polar Science Center, APL, University of Washington
2000-2004	Senior Engineer, Jet Propulsion Laboratory
1996-2000	Member of Technical Staff, Jet Propulsion Laboratory
1995-1996	Post doctoral researcher, Jet Propulsion Laboratory
1986-1988	Electrical Engineer, Green Mountain Radio Research

Publications

Related Publications

1. **Joughin, I.**, S. B. Das, M. A. King, B. E. Smith, I. M. Howat, and T. Moon, Seasonal speedup along the western flank of the Greenland Ice Sheet, *Science*, *320*(5877), 781-783, 2008.
2. Das, S. B., **I. Joughin**, M. D. Behn, I. M. Howat, M. A. King, D. Lizarralde, and M. P. Bhatia, Fracture propagation to the base of the Greenland Ice Sheet during supraglacial lake drainage, *Science*, *320*(5877), 778-781, 2008.
3. **Joughin, I.**, W. Abdalati, and M. Fahnestock, Large fluctuations in speed on Greenland's Jakobshavn Isbrae glacier, *Nature*, *432*(7017), 608-610, 2004.
4. **Joughin, I.**, and S. Tulaczyk, Positive mass balance of the Ross Ice Streams, West Antarctica, *Science*, *295* (5554), 476-480, 2002.
5. **Joughin, I.**, L. Gray, R. Bindschadler, S. Price, D. Morse, C. Hulbe, K. Mattar, and C. Werner, Tributaries of West Antarctic Ice streams revealed by RADARSAT interferometry, *Science*, *286* (5438), 283-286, 1999.

Other Publications

1. **Joughin, I.**, I. M. Howat, R.B. Alley, G. Ekstrom, M. Fahnestock, T. Moon, M. Nettles, M. Truffer, and V.C. Tsai, Ice-Front Variation and Tidewater Behavior on Helheim and Kangerdlugssuaq Glaciers, Greenland, *JGR Earth Surface*, *113*(F1), F01004, 2008.
2. Alley, R.B., P.U. Clark, P. Huybrechts, and **I. Joughin**, Ice-sheet and sea-level changes, *Science*, *310*, 456-460, 2005.
3. **Joughin, I.**, et al., Continued deceleration of Whillans Ice Stream, West Antarctica, *Geophys. Res. Lett.*, *32*, 2005.
4. **Joughin, I.**, D.R. MacAyeal, and S. Tulaczyk (2004), Basal shear stress of the Ross ice streams from control method inversions, *J. Geophys. Res.-Solid Earth*, *109,* 2004.
5. **Joughin, I.**, S. Tulaczyk, D.R. MacAyeal, and H. Engelhardt, Melting and freezing beneath the Ross ice streams, Antarctica, *J. Glaciol.*, *50*, 96-108, 2004.

Synergistic Activities

1. Served as PI or Co-I on NSF and NASA funded glaciological studies of Greenland and West Antarctic ice sheet using satellite radar interferometry and other spaceborne sensors in conjunction with ice flow models.
2. Development and publication of techniques used for estimation of ice sheet motion and topography using interferometric SAR.

3. Developed prototype mosaicking algorithms used for near-global map of surface topography from the Shuttle Radar Topography Mission.
4. Participated in three field seasons each in Greenland and Antarctica.
5. Currently serving as the Co Chair for NASA's DESDynI Decadal Mission Science Study Group.

Collaborators and Other Affiliations

Collaborators and Co-Editors

W. Abdalati (NASA), R. Alley (Penn. State), S. Anandakrishnan (Penn. State), D. Aubry (E. Centrale Paris), J. Bamber (U. Bristol, UK), M. Behn (WHOI), A. Behar (JPL), R. Bell (Lamont), M. Bahtia (WHOI), B. Bindschadler (NASA), D. Blankenship (U. Texas), J. Bohlander (NSIDC), M. Bougamont (U. Bristol, UK), J. Box (Ohio State), G. Catania (U. Texas), P.U. Clark (Oregon State), H. Corr (BAS), S. Das (WHOI), G. Ekstrom (LDEO), H. Engelhardt (Cal Tech), S. Erofeeva (Oregon State), M. Fahnestock (UNH), F. Ferraccioli (BAS), C. Hulbe (Portland State), P. Gogineni (U. Kansas), L. Gray (CCRS, Canada), G.H. Gudmundsson (BAS), P.R. Holland (BAS), I. Howat (UCSC), H. Horgan (Penn State), P. Huybrechts (U. Brussel), R. Jacobel (St. Olafs College), A. Jenkins (BAS), K. Jezek (Ohio), R. Johnston (Portland State), B. Kamb (Cal Tech), E.C. King (BAS), M. King (U. Newcastle, UK), W. Krabill (NASA), R. Kwok (JPL), A. Lane (JPL), E. Larour (JPL), B. Lucchitta (USGS), D. Lizarralde (WHOI), D.R. MacAyeal (U. Chicago), D. Morse (U. Texas), M. Nettles (LDEO), L. Padman (ESR), A. Payne (U. Bristol), L. Peters (Penn. State), S. Price (U. Washington), E. Rignot (JPL), C. Rosanova (NRCS), T. Scambos (NSIDC), C. Shuman (UMD), M. Siegert (U. Bristol, UK), B. Smith (UW), V.B. Spikes (Earth Science Agency), M. Studinger (Lamont), M. Truffer (U. Alaska), S. Tulaczyk (UCSC), T. Thorsteinsson (U. Iceland), V. Tsai (Harvard),D.G. Vaughan (BAS, UK), A. Vieli (U. Durham, U.K.), S. Vogel (N. Illinois), D. Voigt (Penn. State), P. Vornberger (NASA), J. Woodward (BAS), W. Wang (NASA), B. Welch (St. Olaf), P. Winberry (Penn. State), J. Zwally (NASA)

Graduate Advisors

D. Winebrenner (Ph.D. Advisor, U. Washington)
R. Kwok (Postdoctoral Advisor, JPL)

Current and Former Students

Joshua Carmichael, Brooke Medley, Kristin Poinar (All current)
Twila Moon (Graduated with MS 1998).