

## RICHARD S. GROSS

Jet Propulsion Laboratory, Mail Stop 238-600, 4800 Oak Grove Drive, Pasadena, CA 91109-8099  
tel: 818-354-4010; fax: 818-393-4965; email: Richard.Gross@jpl.nasa.gov

### Education

Ph.D. 1982 Geophysics, University of Colorado, Boulder.  
B.S. 1975 Physics-Math, Purdue University.

### Experience (Earth rotation<sup>\*</sup>, time-varying gravity<sup>†</sup>, program management<sup>‡</sup>, seismology<sup>§</sup>)

Technical Staff–Principal, Tracking Systems and Applications Section, JPL, 10/99–present<sup>\* †</sup>  
Technical Staff–Senior, Tracking Systems and Applications Section, JPL, 3/97–9/99<sup>\* †</sup>  
Acting Program Scientist, Geophysical Modeling & Analysis Program, NASA, 4/93–8/93<sup>‡</sup>  
Technical Group Leader, Tracking Systems and Applications Section, JPL, 6/92–present<sup>\* †</sup>  
Member Technical Staff, Tracking Systems and Applications Section, JPL, 5/88–3/97<sup>\* †</sup>  
Geophysicist, Geophysics Research Division, Air Force Tech. Applications Center, 2/87–4/88<sup>§</sup>  
Postdoctoral Research Fellow, Geophysics Group, Los Alamos National Lab., 11/84–12/86<sup>§</sup>  
NAS/NRC Postdoctoral Research Associate, Geodynamics Branch, GSFC, 11/82–10/84<sup>\* †</sup>

### Professional Affiliations and Activities

*Eos* Corresponding Editor for Geodesy, 2003–present  
President, IAG Subcommittee 3.3 on Geophysical Fluids, 2003–present  
Chair, IERS Special Bureau for the Oceans, 1998–present  
Chair, IAG/IAPSO JWG on Geodetic Effects of Nontidal Oceanic Processes, 1999–2003  
Member, IERS Working Group on Combination, 2003–present  
Member, Joint IAU/IUGG Working Group on Non-Rigid Earth Nutation Theory, 1994–1999  
Member, IAG Special Study Group 5.143 on Rapid Earth Orientation Variations, 1991–1995  
Member, IAU WG on Earth Rotation in the HIPPARCUS Reference Frame, 1991–1997  
Member, IAU Commission 19 (Rotation of the Earth), 1994–present  
Member, IERS Special Bureau for the Mantle, 1998–present  
Ex-officio member, IERS Special Bureau for Loading, 2002–present  
Fellow, International Association of Geodesy (IAG), 2003–present  
Member, American Geophysical Union, 1978–present  
Member, European Geosciences Union, 2003–present  
Member, European Geophysical Society, 2000–2002  
Associate Member, International Earth Rotation and Reference Systems Service (IERS)  
Co-organizer of Workshop on *Forcing of Polar Motion in the Chandler Frequency Band*, 4/04  
Session organizer and chair for AGU, EGS, EGU, IAG, and IUGG conferences  
Manuscript reviewer for *Science*, *Nature*, *JGR*, *GRL*, *GJI*, *J. Geodesy*, *J. Geodynamics*, *et al.*  
Proposal reviewer for NASA and US National Science Foundation  
Member, GRACE Science Team, Ørsted Science Team; Lead-Co-Investigator of CHAMP

### Honors and Awards

NASA Exceptional Scientific Achievement Medal for Chandler excitation studies (5/01)  
NASA Group Achievement Award for the GPS CTS/KEOF Earth Rotation Team (5/99)  
NASA Group Achievement Award for the Galileo Project Team—Flight Operations (4/98)  
NASA Group Achievement Award for the Galileo Orbital Operations Recovery Team (4/97)  
NASA Group Achievement Award for the Project Galileo Team—Probe and Orbiter (4/96)

### Selected Peer-Reviewed Publications

- Gross, R. S., Earth rotation variations — long period (invited), in *Physical Geodesy*, edited by T. A. Herring, submitted, Treatise on Geophysics vol. 11, Elsevier, Amsterdam, 2005.
- Gross, R. S., and B. F. Chao, The rotational and gravitational signature of the December 26, 2004 Sumatran earthquake (invited), *Surv. Geophys.*, submitted, 2005.
- Gross, R. S., I. Fukumori, and D. Menemenlis, Atmospheric and oceanic excitation of decadal-scale Earth orientation variations, *J. Geophys. Res.*, **110**, B09405, doi:10.1029/2004JB003565, 2005.
- Gross, R. S., Oceanic excitation of polar motion: A review (invited), in *Forcing of Polar Motion in the Chandler Frequency Band: A Contribution to Understanding Interannual Climate Change*, edited by H.-P. Plag, B. F. Chao, R. S. Gross, and T. van Dam, pp. 89–102, Cahiers du Centre Européen de Géodynamique et de Séismologie vol. 24, Luxembourg, 2005.
- Gross, R. S., The observed period and Q of the Chandler wobble, in *Forcing of Polar Motion in the Chandler Frequency Band: A Contribution to Understanding Interannual Climate Change*, edited by H.-P. Plag, B. F. Chao, R. S. Gross, and T. van Dam, pp. 31–37, Cahiers du Centre Européen de Géodynamique et de Séismologie vol. 24, Luxembourg, 2005.
- Gross, R. S., I. Fukumori, D. Menemenlis, and P. Gegout, Atmospheric and oceanic excitation of length-of-day variations during 1980–2000, *J. Geophys. Res.*, **109**, B01406, doi:10.1029/2003JB002432, 2004.
- Gross, R. S., G. Blewitt, P. Clarke, and D. Lavallée, Degree-2 harmonics of the Earth's mass load estimated from GPS and Earth rotation data, *Geophys. Res. Lett.*, **31**, L07601, doi:10.1029/2004GL019589, 2004.
- Gross, R. S., Angular momentum in the Earth system (invited), in *V Hotine-Marussi Symposium on Mathematical Geodesy*, edited by F. Sanso, pp. 274–284, IAG Symposia vol. 127, Springer-Verlag, New York, 2004.
- Gross, R. S., I. Fukumori, and D. Menemenlis, Atmospheric and oceanic excitation of the Earth's wobbles during 1980–2000, *J. Geophys. Res.*, **108**(B8), 2370, doi:10.1029/2002JB002143, 2003.
- Gross, R. S., and B. F. Chao, The gravitational signature of earthquakes, in *Gravity, Geoid, and Geodynamics 2000*, edited by M. G. Sideris, pp. 205–210, Springer-Verlag, New York, 2001.
- Gross, R. S., The excitation of the Chandler wobble, *Geophys. Res. Lett.*, **27**, 2329–2332, 2000.
- Gross, R. S., and J. Vondrák, Astrometric and space-geodetic observations of polar wander, *Geophys. Res. Lett.*, **26**, 2085–2088, 1999.
- Gross, R. S., B. F. Chao, and S. Desai, Effect of long-period ocean tides on the Earth's polar motion, *Prog. Oceanogr.*, **40**, 385–397, 1998.
- Gross, R. S., S. L. Marcus, T. M. Eubanks, J. O. Dickey, and C. L. Keppenne, Detection of an ENSO signal in seasonal length-of-day variations, *Geophys. Res. Lett.*, **23**, 3373–3376, 1996.
- Gross, R. S., K. H. Hamdan, and D. H. Boggs, Evidence for excitation of polar motion by fortnightly ocean tides, *Geophys. Res. Lett.*, **23**, 1809–1812, 1996.
- Gross, R. S., The effect of ocean tides on the Earth's rotation as predicted by the results of an ocean tide model, *Geophys. Res. Lett.*, **20**, 293–296, 1993.
- Gross, R. S., Correspondence between theory and observations of polar motion, *Geophys. J. Int.*, **109**, 162–170, 1992.
- Chao, B. F., and R. S. Gross, Changes in the Earth's rotation and low-degree gravitational field induced by earthquakes, *Geophys. J. Roy. astr. Soc.*, **91**, 569–596, 1987.
- Gross, R. S., The influence of earthquakes on the Chandler wobble during 1977–1983, *Geophys. J. Roy. astr. Soc.*, **85**, 161–177, 1986.