

Roman Glazman — Curriculum Vitae

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Education:

- Ph.D. in Phys. Oceanogr., University of Rhode Island, Graduate School of Oceanography, Narragansett, RI, U.S.A., 1985.
- B.S. and M.A.Sc., Leningrad Institute of Hydrometeorology, Department of Oceanography, Leningrad, U.S.S.R., 1971.

Other Studies:

- 1975-1979: Postgraduate School at the Shirshov Inst. of Oceanology, at the U.S.S.R. Academy of Sciences, Moscow. Ph.D. Dissertation completed (under Prof. K. Shifrin) but not submitted for defense in connection with my immigration to the USA.
- 1970-1971, 1974-1975: Graduate Courses in Advanced Math at the Dept. Math and Mech., Leningrad State University, U.S.S.R.

Employment History:

- 1985-present: Research Scientist. Jet Propulsion Laboratory, California Institute of Technology, Pasadena.
- 1980-84: Research Assistant Professor (1983-84), Research Associate (1981-83), Post-Doctoral Fellow (1980-81). Dept. Ocean Eng., University of RI, Kingston. R.I.
- 1975-78: Senior Research Scientist. Dept. of Sea Dynamics, Nat. Inst. Oceanography (GOIN), Moscow, U.S.S.R.
- 1974-75: Research Scientist. Dept. Rem. Sensing, Leningrad Branch of GOIN, Leningrad, U.S.S.R.
- 1971-74: Engineer-Oceanographer. Dept. Sea Forecasting, Kamtchatsky Weather Bureau, Petropavlovsk-Kamtchatsky, U.S.S.R.

Distinctions and Awards:

Numerous monetary awards and Certificates of Recognition from NASA HQ for work on remote sensing techniques.

Member of the Academy for Electromagnetics. Biography published in "Who is Who in Electromagnetics."

Consulting:

1992-93: Consultant for Illgen Simulation Technologies, Inc. Goletta, CA.

1983-85: Consultant for Applied Science Associates (ASA), Narragansett, RI.

Refereed Publications:

- Glazman, R.E., 1981, Radio-interferometric measurements of sea level oscillations with large tidal amplitude, IEEE J. Oce. Eng., OE-6, 3, 73-76.

- Glazman, R.E., 1982, Using an S-band radio-interferometer for measurements of the phase shift of radio waves coherently reflected from the sea surface, *Radio Science*, 17(3), 635-642.
- Glazman, R.E., 1982, An experimental implementation of interferometric techniques for sea level measurements and reflection coefficient phase determination. *IEEE J. Oce. Eng.*, OE-7, 4, 155-160.
- Glazman, R.E., 1983, Effects of adsorbed films on gas bubble radial oscillations, *J. Acoust. Soc. Am.*, 74, 980-986.
- Glazman, R.E., 1984, Damping of bubble oscillations induced by transport of surfactants between the bubble wall and the bulk solution. *J. Acoust. Soc. Am.*, 76, 890-896.
- Glazman, R.E., 1986, Statistical characterization of sea surface geometry for a wave slope field discontinuous in the mean square, *J. Geophys. Res.*, 91(C5), 6629-6641.
- Glazman, R.E., 1987, Wind-fetch dependence of Seasat scatterometer measurements. *Int. J. Rem. Sens.*, 8(11), 1641-1647.
- Glazman, R.E., G.G. Pihos, and J. Ip, 1988, Scatterometer wind speed bias induced by the large-scale component of the wave field, *J. Geophys. Res.*, 93(C2), 1317-1328.
- Glazman, R.E. and P.B. Weichman, 1989, Statistical geometry of a small surface patch in a developed sea, *J. Geophys. Res.*, 94(C4), 4998-5010.
- Glazman, R.E. , 1990, Near-nadir radar backscatter from a well-developed sea. *Radio Science*, 25(6), 1211-1219.
- Glazman, R.E. , and S.H. Pilorz, 1990, Effects of sea maturity on satellite altimeter measurements. *J. Geophys. Res.*, 95(C3), 2857-2870.
- Glazman, R.E. and P.B. Weichman, 1990, Reply to Comments by E.C. Monahan on "Statistical geometry of a small surface patch in a developed sea". *J. Geophys. Res.*, 95(C2), 1771-1773.
- Glazman, R.E., 1991, Statistical problems of wind-generated gravity waves arising in microwave remote sensing of surface winds., *IEEE Trans. Geosci. Rem. Sens.*, 29(1), 135-142.
- Fu, L.L. and R.G. Glazman, 1991, The effect of the degree of wave development on the sea state bias in radar altimetry measurements, *J. Geophys. Res.*, 96(C1), 829-834.
- Glazman, R.E. 1991, Reply To Comments by W. Pierson. *J. Geophys. Res.*, 96(C3), 4979-4983.
- Glazman, R.E. and M. Srokosz, 1991, Equilibrium wave spectrum and sea state bias in satellite altimetry. *J. Phys. Oceanogr.*, 21(11), 1609-1621.
- Glazman, R.E., 1992, Multiwave interaction theory for wind-generated surface gravity waves. *J. Fluid Mech.*, 243, 623-635.
- Glazman, R.E. and A. Greysukh, 1993, Satellite altimeter measurements of surface wind. *J. Geophys. Res.*, 98(C2), 2475-2483.

- Glazman, R.E., 1993, A cascade model of wave turbulence with applications to surface gravity and capillary waves. *Fractals*, **1**(3), 513-520.
- Glazman, R.E., A. Greysukh, and V. Zlotnicki, 1994, Evaluating models of sea state bias in satellite altimetry, *J. Geophys. Res.*, **99**(C6), 12581-12591.
- Glazman, R.E., 1994, Surface gravity waves at equilibrium with a steady wind. *J. Geophys. Res.*, **99**(C3), 5249-5262.
- Glazman, R.E., 1995, A simple theory of capillary-gravity wave turbulence. *J. Fluid Mech.*, **293**, 25-34.
- Glazman, R.E., A. Fabrikant, and M.A. Srokosz, 1996, Numerical analysis of the sea state bias for satellite altimetry, *J. Geophys. Res.*, **101**(C2), 3789-3799.
- Glazman, R.E., 1996, Spectra of baroclinic inertia-gravity wave turbulence. *J. Phys. Oceanogr.*, **26**(7), 1256-1265.
- Glazman, R. E., A. Fabrikant, and A. Greysukh, 1996, Statistics of spatio-temporal variations of sea surface height based on Topex altimeter measurements, *Int. J. Rem. Sens.* **17**, 2647-2666.
- Glazman, R. E., A. Fabrikant, and A. Greysukh, 1996, Nonlinear features of baroclinic Rossby waves detected in Topex altimeter observations, *Nonlinear Processes in Geophysics*, **3**, 115-126.
- Glazman, R. E. and B. Cheng, 1999, Altimeter observations of baroclinic oceanic inertia-gravity wave turbulence, *Proc. Roy. Soc. Ser. A*. **455**, 91-123.
- Weichman, P. B., and R. E. Glazman, 1999, Turbulent fluctuation and transport of passive scalars by random wave fields, *Phys. Rev. Lett.*, **83**, 5011-5014.
- Weichman, P. B., and R. E. Glazman, 2000, Passive scalar transport by traveling wave fields, *J. Fluid Mech.*, **420**, 147-200.
- Weichman, P. B., and R. E. Glazman, 2002, Spatial variations of a passive tracer in a random wave field, *J. Fluid Mech.*, **453**, 263-287.
- Glazman, R. E., and P.B. Weichman, 2002, Meridional component of oceanic Rossby wave propagation, *Dynamics of Atmosphere and Oceans*. (Under review). Available via anonymous ftp from: oceans-www.jpl.nasa.gov/pub/reg/
- Glazman, R. E., and Y. N. Golubev, 2003, Energy dissipation rate inferred from observed spectra of baroclinic inertia-gravity waves. *J. Phys. Oceanogr.* (Under review). Available via anonymous ftp from: oceans-www.jpl.nasa.gov/pub/reg/

BOOK CHAPTERS:

- Glazman, R.E., Chapter 3: "Wave Spectra of Developed Seas". In *Nonlinear Waves and Weak Turbulence*, Eds: N. Fitzmaurice, et al., The Birkhauser Series on Nonlinear PDF's, H. Brezis, Birkhauser, Boston 1993, 1993, 345 pp.

- Glazman, R.E., A cascade model of wave turbulence with applications to surface gravity and capillary waves. In "Fractals in Natural Sciences", Eds T. Viscek, M. Shlesinger, M. Matsushita, World Scientific, 1994, 644 pp.
- Glazman, R.E., Scale-dependent ocean wave turbulence. In "Stochastic Models in Geosystems", Eds. S.A. Molchanov and W.A. Woyczyński, IMA Volumes in Mathematics and Its Applications, Vol. 85, 97-114, Springer Verlag, N.Y., 1996.