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Dr. Vasquez is a Research Associate Professor in the Institute for the Study of Earth, Oceans, and Space and the Department of Physics. He is also a member of the UNH Solar Terrestrial Theory Group and arrived at UNH in 1993 as a post-doctoral research associate. Prior to joining UNH, he completed his dissertation entitled "Nonlinear Wave Evolution in a Dispersive Plasma: Application to Rotational Discontinuities" at the University of Maryland, College Park with Dr. K. Papadopoulos and Dr. P. Cargill. Dr. Vasquez's research interests are primarily in the area of solar wind, magnetopause, magnetic clouds, waves, discontinuities, ion kinetics, reconnection, and numerical simulations.

## EDUCATION

Graduate: University of Maryland, College Park, MD, Ph.D. in Astronomy, December 1992.

Undergraduate: Rensselaer Polytechnic Institute, Troy, NY, B.S. in Physics, May 1987.

## PUBLICATIONS

1. Vasquez, B. J., Magnetohydrodynamic mode coupling at a large-density jump, *Ap. J.*, *356*, 693-703, 1990.
2. Vasquez, B. J., Comparison of weakly and strongly nonlinear wave evolution in a dispersive plasma, *Geophys. Res. Let.*, *19*, 2091-2094, 1992.
3. Vasquez, B. J., and P. J. Cargill, The evolution of strongly modulated low-frequency, moderate-amplitude wave packets in a dispersive plasma, *Phys. Fluids B*, *5*, 42-54, 1993.
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7. Vasquez, B. J., and J. V. Hollweg, Formation of arc-shaped Alfvén waves from oblique linearly polarized wave trains, *J. Geophys. Res.*, *101*, 13,527-13,540, 1996.

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12. Vasquez, B. J., and J. V. Hollweg, Nonlinear evolution of Alfvén waves and RDs—Hybrid simulations, *Solar Wind Nine*, edited by Shadia Habbal et al., *AIP Conf. Proc.*, 167-172, 1999.
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14. Vasquez, B. J., and J. V. Hollweg, Evolution and dissipation of imbedded rotational discontinuities and Alfvén waves in nonuniform plasma and the resultant proton heating, *J. Geophys. Res.*, 106, 5661-5681, 2001.
15. Vasquez, B. J., C. J. Farrugia, S. A. Markovskii, J. V. Hollweg, I. Richardson, R. Lepping, K. Ogilvie, D. Larson, and R. P. Lin, The nature of fluctuations on directional discontinuities inside a solar ejection: Wind and IMP 8 observations, *J. Geophys. Res.*, 106, 29,283-29,298, 2001.
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21. Kaghshvili, E. Kh., B. J. Vasquez, G. P. Zank, and J. V. Hollweg, Deceleration of relative streaming between proton components among nonlinear low-frequency Alfvén waves, *J. Geophys. Res.*, 109(12), 101, doi:10.1029/2004JA010496, 2004.
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25. Smith, C. W., K. Hamilton, and B. J. Vasquez, Variance Anisotropy in the Inertial range, in *Solar Wind Eleven*, *ESA publ.*, in press, 2005.

### PROFESSIONAL AFFILIATIONS

American Geophysical Union, since 1991.

American Astronomical Society, since 1992.