

## BIOGRAPHICAL SKETCH

Dr. Vladimir Osherovich

### PRESENT POSITION:

Principal Scientist, Emergent, NASA/GSFC Code 690.2, Greenbelt, MD 20771

### EDUCATION:

M.S., Physics, Univ. of Leningrad, USSR, 1973

Ph.D., Theoretical Physics and Math. Science, Astron. Observ. of Acad. of Science, Leningrad, Pulkovo, USSR, 1977

### PREVIOUS POSITIONS:

Post. Doc., Astron. Observ. of Academy of Science, Leningrad, 1977-1979

Visiting Scientist, Nat. Cntr. for Atmos. Res., HAO, 1980-1981

Senior Res. Assoc., Nat. Acad. of Science, NOAA, 1981-1983

Research Assoc. & Guest W., Coop. Inst. for Res. in Envir. Science, Boulder, 1983-89

Senior Res. Assoc., Nat. Acad. of Sci., NASA/GSFC 1989-1991

Principal Scientist, Emergent, NASA/GSFC, 1991-present

### SCIENTIFIC SOCIETIES:

American Geophysical Union

International Union of Radio Sciences

### SELECTED PUBLICATIONS

Selected Publications Related to Proposal:

1987 Physical nature of the diffuse plasma resonances in the ionosphere, *J Geophys Res.*, 92: (A1), 316-320.

1991 The lower subsidiary diffuse plasma resonances and the classification of radio emissions below the plasma frequency, with R.F. Benson, *J Geophys Res.*, 96: (A11), 19331-19341.

1993 Polytropic relation in interplanetary clouds, with C.J. Farrugia, L.F. Burlaga, R.P. Lepping, J. Fainberg and R.G. Stone, *J. Geophys. Res.*, 98, 15, 15,331.

1993 Dynamics of aging magnetic clouds, with C.J. Farrugia and L.F. Burlaga, *Adv. Space Sci.*, 13(6),57.

1995 The nonlinear evolution of magnetic flux ropes: 2. Finite beta plasma, with C.J. Farrugia and L.F. Burlaga, *J. Geophys. Res.*, 100, 12,307.

1996 Ulysses observations of electron and proton components in a magnetic cloud and related wave activity, Fainberg, J., V.A. Osherovich, R.G. Stone, R.J. MacDowall and A. Balogh, *Proc. Solar Wind 8 Conference*, Dana Point, CA., eds. D. Winterhalter, J.T. Gosling, S.R. Habbal, W.S. Kurth and M. Neugebauer, 554.

1998 Measurements of polytropic index in the January 10-11, 1997 magnetic cloud observed by Wind, Osherovich VA, J Fainberg, RG Stone, R Fitzenreiter, A.F. Viñas *GRL*, 25: (15), 3003-3006.

1999 Multi-tube model for interplanetary magnetic clouds, Osherovich, V.A., J. Fainberg and R.G. Stone, *GRL* 26: (3), 401-404, 1999.

1999 Solar wind quasi-invariant as a new index of solar activity, Osherovich, V.A., J. Fainberg and R.G. Stone, *GRL* 26(16) 2597-2600

2001 Pioneer-Venus observations of a solar wind quasi-invariant, Fainberg, J, V.A. Osherovich and R.G. Stone, GRL, 28(8), 1447.

Other Relevant Publications:

1993 The nonlinear evolution of magnetic flux ropes: 1. Low-beta limit, with C.J. Farrugia and L.F. Burlaga, J. Geophys. Res., 98, 13,225.

1995 The magnetic flux rope versus the spheromak as models for interplanetary magnetic clouds, with C.J. Farrugia and L.F. Burlaga, J. Geophys. Res., 100, 12,293.

1997 Self-similar evolution of interplanetary magnetic clouds and Ulysses measurements of the polytropic index inside the cloud, Osherovich, V., J. Fainberg, R.G. Stone, R.J. MacDowall and D. Berdichevsky, ESA SP-415

1997 Magnetic clouds (Review), with L.F. Burlaga, Bozeman Conference on Coronal Mass Ejections; Coronal Mass Ejections, Eds. N. Crooker, J. Joselyn and J. Feynman, 157