## **Misner Charles**

Position: Professor Emeritus and Senior Research Scientist

University of Maryland

Period: 2000-present

## I Scientific Work

Discussions with Ruffini, Kerr, and Vereshchagin regarding black holes and gamma ray bursts. Commented on Gurzadyan's papers on CMB

## II Conference and educational activities

Lectured at the symposium "Lucrezio, Leopardi, Hawking: tra Vuoto e Materia" at Villa Favorita in Ercolino. My title was "One attempt to make Something out of Nothing in Theoretical Physics" with a translation to Italian by Paola Catapano (CERN).Lectured in Rome "La Sapienza" on "John A Wheeler's rescue of Einstein's gravitation theory".

## **III Other**

**Education:** B.S. Physics, Notre Dame 1952 (mathematics mentor Arnold Ross); Ph.D., Princeton 1957 (mentor John Archibald Wheeler).

**University Positions:** Princeton 1956-63, University of Maryland 1963-2000, now Emeritus. Visitor at Max-Planck Einstein Institute (Potsdam) 2000, 2002, 2005; UC Santa Barbara ITP 1980-81; All Souls College, Oxford 1973; Caltech 1972; Princeton 1969; DAMTP Cambridge UK 1966-67.

**Honors and Awards:** Fellow of the American Academy of Arts & Sciences 2000; Dannie Heineman Prize for Mathematical Physics (APS, shared with Arnowitt and Deser) 1994; Guggenheim Fellowship 1972-73; Festschrift (*Papers in honor of Charles Misner*, Cambridge Univ. Press 1993, Hu et al. editors).

**Selected Publications:** Arnowitt, Deser and Misner (ADM) "The dynamics of general relativity" (This paper; originally pp 227—265 in L. Witten, ed., *Gravitation: An Introduction to Current Research*, Wiley, New York, 1962), gr-qc/0405109;

- -- Misner, Thorne and Wheeler (MTW) *Gravitation* (Freeman 1973) [Now a classic, never revised, still selling over 500 copies per year.];
- -- Misner and Finkelstein "Some New Conservation Laws" (Annals of Physics 6, 230—243, 1959);
- -- Misner, "Wormhole Initial Conditions" (*Physical Review* **118**, 1110—1111, 1960)
- -- Misner (with D L Beckedorff), "Infinite Red-Shifts in General Relativity" (pp 75—89 in T Gold, ed., *The Nature of Time---Cornell Conference 1963*, Cornell University Press 1967) http://www.lib.umd.edu/drum/handle/1903/4280?mode=full;
- -- Misner, "Quantum Cosmology" (*Physical Review* **186**, 1319—1327, 1969);
- -- Misner, "Minisuperspace" (pp 441—473 in J. Klauder, ed., *Magic Without Magic---J. A. Wheeler 60th Anniversary Volume*, Freeman 1972);
- -- Misner, "The Mixmaster Cosmological Metrics" (pp 317—328 in *Deterministic Chaos in General Relativity*, Hobill et al., eds., Plenum Press 1994);
- -- Misner, van Meter and Fiske "Excising das All: Evolving Maxwell waves beyond scri" (Phys.Rev. **D74**, 064003, 2006), gr-qc/0603034

**Students:** Twenty-two Ph.D. students, of whom half became full professors in physics or mathematics, while several others had equally important positions.

