

## DR. FRANK B. MCDONALD

UNIVERSITY OF MARYLAND  
PHYSICS DEPARTMENT  
MENTORED PH.D. STUDENTS, DEGREE DATES

*Peter Serlemitsos 1965-66*

*Bonnard John Teegarden 1966-67*

*Gunter Riegler 1968-69*

*James Humphreys Kinsey 1969-70*

*Richard David Bleach 1971-72,*

*Axel F. Briskeen 1973-74*

*Joseph K. Daugherty 1973-74*

*Robert Fred Silverberg 1973-74*

*Hsien Ta Wang 1974-75*

*Frank A. Hagen 1975-76*

*Steven H. Prado 1975-76*

*Taeil Bai 1976-77*

*Linda Ma Sung 1976-77*

*Louis Kaluzjanski 1976-77*

*Roger W. Bussard 1977-78*

*Lim Hung Cheung 1979-80*

*Daniel J. Morris 1981-82*

*Richard Arrick Shafer 1982-83*

### FAMILY REFLECTION

Frank was a brilliant scientist, administrator, and mentor. That is well documented, but here is a view of another dimension.

He was a wonderful husband, father, grandfather of 12 (blended) and the great-grandfather of four. Incredibly vibrant even at 87 years old, he loved to preside over large gatherings of family and friends, preparing sumptuous meals to be enjoyed with fine wine. He made all of us feel well-loved and special.

No one who knew him ever thought of him as "old." A friend wrote, "I thought of Frank as eternal." And now he is, forever in our midst.

Contributions in honor of Frank and for the establishment of a scholarship fund in space science can be sent to the University of Maryland Foundation, Institute for Physical Science and Technology, Rm. 4115 Computer Space Science Bldg. College Park, MD 20742.



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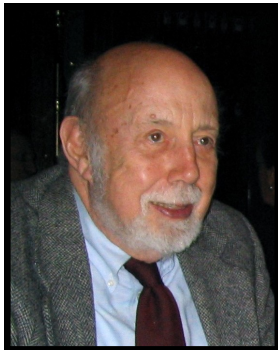
## MEMORIAL SYMPOSIUM In honor of Dr. Frank B. McDonald



FRIDAY, NOVEMBER 16, 2012

9:00 AM-5:00 PM

UNIVERSITY OF MARYLAND  
MULLIGAN'S GRILL



Dr. Frank McDonald, Senior Research Scientist at the Institute for Physical Science and Technology, died on Friday, August 31, 2012, having lost consciousness moments after speaking at a scientific meeting near Ann Arbor, Michigan the previous day.

Frank was born on May 28, 1925. He received his B.S. degree from Duke University in 1948 and M.S. and Ph.D. degrees in Physics and Mathematics from the University of Minnesota in 1951 and 1955. Before coming to Goddard Space Flight Center as the Head of the Energetic Particles Branch in 1959, he was Assistant Professor of Physics at Iowa State University. Frank was Chief of Goddard's Laboratory for High Energy Astrophysics from 1970 to 1982, and in 1982 became NASA's Chief Scientist, serving until 1987 when he returned to Goddard as Associate Director/Chief Scientist. Frank retired from NASA in 1989

Frank's research was in the area of heliospheric physics including solar and galactic cosmic rays and the magnetospheres of Jupiter and Saturn. At Goddard, Frank was Principal Investigator on experiments flown on Explorer, IMP, OGO, and Pioneer spacecraft and co-investigator on experiments on ISEE-3, and Voyager 1 and 2. He was Project Scientist on Explorer XII and XIV and IMP I, II, III, IV, and VI.

Frank's leadership and emphasis on the highest quality research had a large role in the technical and scientific success of Goddard. He had an eye for talent and recruited several scientists who have gone on to distinguished careers. He was especially effective in helping young scientists.

From 1963 to 1983 Frank was a Part-time Professor of Physics at the University of Maryland where he regularly gave advanced courses in cosmic ray physics and served as mentor to 17 Ph.D. students. In 1989, he joined the Institute for Physical Science and Technology as a Senior Research Scientist. He maintained a vibrant and active research program, and mentored a number of distinguished research scientists and faculty.

He was a Fellow of the American Physical Society and a member of the National Academy of Science. Among his awards were the Lindsay Award in 1982 and the NASA Award for Exceptional Scientific Achievement in 1986.

We are saddened by his death. His accomplishments, influence, and kindness made him many friends and colleagues from all over the world.

Michael Coplan, Associate Director  
Rajarshi Roy, Director



## SPEAKERS

9:00 - 10:00 Introductions and Opening Remarks	Nicholas White, Director of the Sciences & Exploration Directorate, GSFC Michael Coplan, Associate Director, IPST Daniel Mote, Regents Professor, Glen L. Martin Inst. Professor of Engineering Christopher Scolese, Director NASA/GSFC Rajarshi Roy, Director, IPST
<b>SESSION I</b>	<b>Chairman: Jonathan Ormes, NASA/GSFC</b>
10:00	Norman Ness, "The IMP Program"
10:15	Carl Fichtel, "Goddard in the Very Beginning and Early Ties to the University of Maryland"
10:30	Tycho von Rosenvinge, "Energetic Particles < 5 AU"
10:45	Edward Stone, "Voyager and Cosmic Rays"
10:45 - 11:15	<b>MORNING BREAK</b>
<b>SESSION II</b>	<b>Chairman: Peter Serlemitsos NASA/GSFC</b>
11:15	Tom Cline, "Explorers and other Memories of FBMCD"
11:30	Randy Jokipii, "Galactic and Anomalous Cosmic Rays in the Heliosphere"
11:45	Ken McCracken, "Long Term Cosmic Ray Variations"
12:00	Steve Holt, "Frank McDonald and the Goddard X-Ray Astrophysics Group"
12:15 - 2:00	<b>LUNCH</b>
<b>SESSION III</b>	<b>Chairman: Alice Harding NASA/GSFC</b>
2:00	Michael Hauser, "Infrared Astrophysics and Cosmology"
2:15	Len Fisk, "Frank as NASA's Chief Scientist"
2:30	Jean Swank, "X-ray Experiments with OSO-8 to RXTE"
2:45	Neil Gehrels, "CGRO to Swift and Fermi"
3:00 - 3:30	<b>AFTERNOON BREAK</b>
<b>SESSION IV</b>	<b>Chairman: Douglas Hamilton, UMD Physics</b>
3:30	Eun-Suk Seo, "CREAM, Continuing the Legacy"
3:45	George Gloeckler, "Frank McDonald and the University of Maryland Space Physics Group"
4:00	Jordan Goodman, "Academic Contributions at UMD"
4:15 - 5:00 Closing Remarks	Michael Coplan, IPST Nicholas White, NASA/GSFC

