

DEDICATION

This first issue of FERMAT on your computer screen is dedicated with grateful appreciation to the life, legacy and memory of Dr. Carl E. Baum.



Those of you working in any area of High-Power Electromagnetics (HPE) such as natural or triggered lightning, Nuclear Electromagnetic Pulse (NEMP), High-Power Microwaves (HPM) and short pulse (SP) technologies, know Dr. Baum well. You probably witnessed his singular ways and heard his staccato laugh at conferences. If he was entering a room, you would hear him before you saw him, almost as if sound traveled faster than light! When he turned 65, in 2005, we paid a tribute to his gigantic career in an article in Radio Science Bulletin [“Dr. Carl Baum: One Remarkable Career”, by W. D. Prather, D. V. Giri and R. L. Gardner , Radio Science Bulletin, No. 312, March 2005. pp 10-20]. I worked with him continuously since my own graduation in 1975, until his demise in 2010. My own professional and personal association with Carl was documented in “My Journey with Carl: A Memoir” by D. V. Giri [available for download at: <http://www.ece.unm.edu/summa/notes/BaumPics/MyJourneyWithCarloptimized.pdf>].

In early 1960’s, the cold war was ON in full swing, with some of the best scientists and engineers from United States and Soviet Union locking horns. The potential of a nuclear explosion at high altitudes (> 40 km) with its crippling effects could be inflicted by either side. Dr. Ralph Partridge of Los Alamos National Laboratory started a Technical NOTEs series distributed amongst select few. Very soon Dr. Baum took this over, moved to the forefront of NEMP R&D, and served as its Chief Editor of the NOTE series for over 40 years. I have followed Carl in the last three years (2011-2013) in serving as the Chief Editor assisted by a great team of reviewers. It is now an on-line series (visit: <http://www.ece.unm.edu/summa/notes>).

I am confident that Carl would have more than a smile on his face to see this new effort of FERMAT, especially because of its novel feature of a web-based bulletin board where readers can write in comments, ask questions, bring up new areas of research in Electromagnetics. FERMAT was conceived by Prof. Raj Mittra. I am honored to be the Co-Editor of FERMAT, and I am able to do this by passing on the Chief Editorship of the NOTE Series to my colleague and good friend, Dr. Robert Gardner. After retiring from his US Air Force career of 41 years, Carl spent 5 years (2005-2010) as a Distinguished Research Professor in the Department of ECE at the University of New Mexico (UNM), in Albuquerque, NM, USA.

FERMAT on-line is not merely an information archival, but a living-breathing entity that is expected to be proactive through its e-bulletin board, in facilitating the preparation of new scholarly content. With dedicated efforts of editors, reviewers, authors and readers, we can build FERMAT that will distinguish itself in the EM publication space and serve the needs of generations of researchers and engineers to come. These features would be particularly endearing to Carl Baum. It is very appropriate that we honor this iconic figure in Electromagnetics by dedicating the first issue in his memory.

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