

## OBITUARY

### Lutz E. Moritz (1943 –2008)



*Curiosity is one of the permanent and certain characteristics of a vigorous mind.*  
Samuel Johnson. The Rambler. 12 March 1751

For the second time this year Radiation Protection Dosimetry is saddened to report the death of a distinguished member of the Accelerator Radiological Protection Community. In October 2006, a few months after his retirement from TRIUMF (Canada's national laboratory for particle and nuclear physics and related sciences), Lutz was diagnosed with *Glioblastoma Multiforme*, an incurable tumour of the brain. For palliative purposes he had surgery almost immediately after the diagnosis and subsequently had radiotherapy and increasingly more aggressive and experimental treatments. Two years after the diagnosis, on 16th October Lutz's life quietly ebbed away. Almost until the end he had been lovingly cared for at home by his wife, Vicki. With Lutz's death Canada, and indeed the international community, loses one of the pioneers of accelerator radiological protection.

Lutz was born on the 17th September 1943, at his grandparents' house in Caputh, close to Potsdam. The birthplace stood within sight of Einstein's former summer cottage. During his boyhood Lutz must certainly have heard many anecdotes about the great man. Perhaps, because of these tales, Lutz's ambitions for his life's work were drawn to physics.

Lutz was only 5 years old when the Berlin Blockade began and the family recalled suffering from hunger during those dark times. Seeking a better life, and to put behind them their harsh memories of the Second World War and its aftermath, Lutz' family emigrated from Germany to Canada in 1954.

Rapidly accommodating to his new environment Lutz proved himself to be an excellent student, did well at high school, winning a scholarship to McGill University and graduating in 1965 with an honours degree in physics. He followed this in 1967 with an M.Sc. from the University of British Columbia, at the Vancouver campus. The title of his Master's Thesis, "A  $^3\text{He}$ -filled proportional chamber for measuring neutron flux" gives a clue to his particular interests in physics at that time and pointed to the course of his future career.

About this time, to support himself, he spent some time teaching mathematics and physics at high schools in Ontario and British Columbia. This was later to stand him in good stead. He was well known for the clear verbal and written expositions of his work. Indeed. A colleague from TRIUMF recently wrote: “He was a truly talented physicist and in particular his expertise in accelerator health physics will be sorely missed. ----He was a good mentor and there was so much more he had still to offer all of us in the field”.

In October 1973 he fulfilled one of his life’s ambitions by being offered an appointment with the Radiation Safety Group at TRIUMF where he progressed steadily through the ranks and ultimately worked for over 30 years as a physicist and lecturer. At his retirement in April 2006 he was Manager of the Environment Health and Safety Department and afterwards continued to serve as Senior Safety Advisor to management.

As his career at TRIUMF prospered so Lutz’s Canadian and international reputation grew. Naturally he served on committees at both TRIUMF and the University of British Columbia as a matter of duty. However, it was his important work at TRIUMF on the radiation safety and shielding of particle accelerators (his work on the ISAC and ISAC-II projects is highly regarded) that brought attention from Ottawa and confirmed him as Canada’s foremost expert on accelerator radiation safety. The rest of the world was quick to fall in step and requests to serve on international review panels were frequent. He served on groups overseeing the radiation safety aspects of many important accelerator projects including, for example, the Super-Conducting Super-Collider (1987; 1992-1993); the CERN Large Hadron Collider (1989) and the ORNL Holifield Radioactive Ion Beam Facility (1994). Lutz was also invited to spend “mini-sabbaticals” advising the staff at CERN, Geneva and at the High Energy Accelerator Research Organization (KEK) in Tsukuba.

Lutz gave generously of his time to his professional organisations. He served on the Board of the Canadian Radiation Protection Association for two separate terms and in several lesser roles. He was one of a small group who established the Accelerator Section of the Health Physics Society and Lutz served as one of its early presidents.

His expertise and personable manner of working led to his assistance in the organization of many scientific meetings for organizations such as CERN; CRPA; HPS, IRCS; OECD/NEA and SLAC. Those who have undertaken such duties know that they require infinite energy and patience - two characteristics that are not often contained in the same person but found abundantly in Lutz.

Lutz was an excellent raconteur and one evening, after a good dinner at his home, the writer was privileged to hear how Lutz’s keen intelligence and compassion for others could combine these two volatile elements. He recalled being given, some years before, an assignment by a senior colleague that initially filled him with dismay because as he initially determined it required him to judge between the work of two friends – who was “right” and who was “wrong”? (From here on the precise details must remain secret “to protect the innocent”). Apparently two physicists, one an empiricist and the other a theoretician had determined values for a physical quantity important for the project in hand. The values were different (but not alarmingly so). The supervisor, being a perfectionist, insisted that this difference be resolved. Realising by now that the assignment might involve “shaming” one of two colleagues Lutz was unhappy - but his duty was his duty! Meticulously Lutz studied the work. First he could find no fault with the theory. He stopped at that point and moved on .to follow the arguments of “the empiricist” and found them rational. What could be wrong? A little bird chirped in his ear. Was the resolution really so simple? He went

back and inserted numbers into the theoretical equations and obtained essential agreement between theory and practice. Apparently all three, supervisor, theoretician and empiricist, had not taken time to check one another's arithmetic. All three were equally "right" or "wrong". Energy, patience, compassion and tact had won the day!

Lutz was well published and this writer is particularly grateful to him for his work on NCRP Report 144. Professional to the end his last works, written while he was ill and no doubt at some cost, were contributions on "Radiation Monitoring and Measurements" and "Environmental Monitoring" to the book "Topics in Accelerator Health Physics", published by The Health Physics Society. Indeed Lutz had hoped to lecture on these topics earlier this at the Professional Development School in Oakland California but his illness had progressed to the point where he was unable to make- the journey, his lectures being presented by a colleague.

Thirty years ago Life dealt Lutz a hard blow. With the death of his wife, as a single father he now had sole responsibility for the nurture of three children in addition to furthering his career. A daughter writes of those days: "He was a loving father, and although often quiet and unassuming, he managed to successfully raise the three of us (no small feat) with humour and wisdom".

Lutz lived his life pursuing many interests. He was, of course foremost a scientist, but he was above all curious and this impelled him along many other paths. He loved literature, music and he was himself a very fine artist. Lutz was a great chef. He learned to be a cook during his time as a single father but his marriage to Vicki stimulated an interest in Cucina Italiana. The skills he learned from no less than his mother-in-law who in turn was impressed by his eagerness, care and attention to detail. Cooking required fresh vegetables and stimulated an interest in the cultivation of Mediterranean vegetables and, later, flowers. Lutz had a gift for language. He was born to first speak and read German. Later in Canada he learned English; and French in Quebec and, finally, Italian. He loved his house and garden near the Steveston district of Richmond and, as any one who has visited knows, proved himself a fine craftsman inside the home. But one of his daughter recounts: "----- one of his biggest passions (was) --- sailing. ----- Shortly after his surgery two years ago --- a close friend from TRIUMF took my Dad on his last sailing trip, only a week after having the tumour removed ---- my Dad beamed from ear to ear the whole trip!"

His keen insight, extensive knowledge and dry sense of humour amply demonstrated his stature in his chosen field. This writer will always remember the kindly twinkle in his eye when he had scored a point in discussion. His colleagues and friends – and he had way of turning all his colleagues into friends – around the world will be greatly saddened by his death and will miss him and his wise counsel.

Our thoughts are with his wife, Vittoria Ruscito, children, Orson, Beatrice and Cailin, mother Margareta, brother Ingo, and grandchildren Shaylyn, Colton, Ethan and Adam. In his memory the family has established The Lutz Moritz Fund for Brain Tumour Research. <http://www.bccancerfoundation.com/LutzMoritz>.

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**Thanks to Oxford University Press this obituary is reproduced from the journal Radiation Protection Dosimetry.**