We regret to report that Dr. Alexandru (Alex) Marin passed away November 14, 2005 in Geneva, Switzerland. He died after a two-week struggle against necrotizing fasciitis, a rare and rapidly progressing infection. Employed by Boston University, Alex was a member of the muon detector group of the ATLAS experiment at the Large Hadron Collider. He had been playing a leading role in the installation of end-cap muon chambers at CERN.

Alex spent his early career working in his native Romania and the Soviet Union. He received his Ph.D. in Physics at the Central Institute for Physics in Bucharest in 1977. He was Principal Investigator for particle physics experiments carried out at CERN and at Dubna from 1974 – 1979, and from 1974 – 1983 was Principal Investigator for the Transition Radiation Experiment on the INTERCOSMOS 17 satellite, and for the ASTRO1 and ASTRO2 experiments on the Romanian Astronaut flight. Alex moved to the United States in 1983. He worked at Columbia University and Indiana University, and then moved to Boston University in 1985, where he spent most of his career. He worked at MIT from 1995 until 1998. During his career, Alex played leading roles in some of the more important large international experiments. Altogether, Alex was co-author on 266 publications during a remarkably productive career.

Among his many accomplishments are the following:

For the MACRO experiment in Italy, he designed and built the laser calibration system for the large array of liquid scintillators. MACRO did the most sensitive searches for magnetic monopoles and other hypothetical particles, and was the first experiment to confirm the discovery of neutrino oscillations by the Super-K detector.

He worked on the PBAR and EXAM antimatter balloon experiments that were flown from Canada. These projects contributed to the design of the AMS magnetic spectrometer that was later flown on the Space Shuttle.

For L3 at the LEP collider at CERN, he designed and built the radiation monitor for the silicon tracker and built a beam dump trigger for LEP. These devices kept the silicon tracker working safely for many years. L3 confirmed many results of the Standard Model of particle physics, and showed there are only three types of neutrinos.

For LIGO, the sensitive gravity wave experiment in Washington and Louisiana, Alex designed and built environmental monitoring systems. LIGO is the first large scale interferometric detector to be built, and it will become increasingly sensitive over the coming decade as it searches for gravitational waves, predicted by Einstein's theory of general relativity.

In 1991, Alex, with Steve Ahlen and Bing Zhou, proposed and developed a muon system concept for the Superconducting Super Collider that was virtually identical to the one later chosen for ATLAS. For ATLAS he built 81 muon chambers and coordinated the construction of all these chambers. Alex developed many of the practical techniques needed to mass-produce these chambers with their highly demanding precision criteria. We expect that Alex's work on ATLAS will be his most enduring legacy.

Alex impressed all who knew and worked with him with his humor, grit, dedication, and courage. Some of his technical solutions were extremely simple but brilliantly effective. He was always willing to fight for what he thought was right, even when others would have compromised. He fought long and hard with considerable personal sacrifice to bring his wife and daughter to a new country for a better life. On the very day when he became ill, he had gone to work despite feeling bad with a severe pain in his leg. Later that day he had to be carried by helicopter to the Geneva hospital where he lapsed into a coma a few hours later. This was characteristic of Alex – he had a nonchalance regarding his personal well-being, and his personal courage was demonstrated repeatedly through his career.

All of us had our favorite “Alex-Romanian” jokes and our favorite anecdotes about Alex (most of which involved his beloved dachshund Rexy, or his talents as a driver of fast cars in Italy). He was a true hero of physics, and he will be missed very much by his colleagues and friends, who number in the hundreds, if not thousands. Alex is survived by members of his remarkable family, his father, two sisters, wife, daughter and grand daughter. He has been immortalized with the attachment of a plaque dedicating his contributions to sector C09 of the Big Wheel of the ATLAS Muon System.

Steve Ahlen, Boston University
Barry Barish, California Institute of Technology
Frank Taylor, Massachusetts Institute of Technology