

## Special News

### Obituary of Sergio Fubini, 1928-2005

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Sergio Fubini died on Saturday the 8 January 2005 after a prolonged illness. He shall be remembered not only as a theoretical physicist but as a promoter of “scientific peace-bridges” in the Middle East.

Fubini was an outstanding physicist with roots at the University of Turin in Italy. He contributed to several areas, including field-theoretic dynamical basis to S-matrix concepts such as Regge singularities, algebraic formulation of current algebras, and super-convergence sum rules that played an important role in the birth of dual resonance models, and factorization of the dual S-matrix, converting it into an infinite component field theory. Fubini and co-workers founded and developed the physical and mathematical principles of string theory. He was recognized by the Dannie Heinman Prize for mathematical physics in 1968, by an honorary degree of Heidelberg University, Germany and by a medal from the Italian Government.

Fubini’s skill and enthusiasm left a strong mark on the students and the institutions. He was at the University of Padua and University of Turin in Italy. He was on the MIT (Massachusetts Institute of Technology, Cambridge, USA) physics faculty during 1967-1973. Fubini and his research student Veneziano formed a research centre at MIT, which includes an exchange programme administered and funded by the Italian Nuclear Physics Institute (INFN) and by MIT. He was an active member of the CERN directorate (January 1971 to December 1980) under the directors John Adams and Léon Van Hove respectively. He played an important role in the planning stage of the Large Electron Positron Collider (LEP) at CERN (European Laboratory for Particle Physics).

In later years Fubini devoted his international standing in physics to promote peace in the troubled region of the Middle East. He organized the “Sinai Physics Meeting,” at the Egyptian resort of Dahab, on the Gulf of Aqaba, in November 1995 [1-2]. This historic meeting brought together Arab, Israeli and Western physicists. It led directly to the formation of the

“Middle East Scientific Cooperation (MESC).” MESC constitutes a network of scientists promoting research cooperation between Europe, the USA and the Middle East. The novel idea of an international synchrotron radiation facility in the Middle East emerged from the MESC workshop in 1997. During this workshop Herman Winick of SLAC (Stanford Linear Accelerator Center, California, USA) and Gustav-Adolf Voss, a former director of DESY (Deutsches Elektronen-Synchrotron, Hamburg, Germany) suggested using the components of Berlin’s BESSY-I machine, scheduled to be closed down in 1999, as the core facility for a new laboratory in the Middle East. At the request of Fubini and Herwig Schopper (director of CERN during 1981-1988) the German government agreed to donate the decommissioned synchrotron to the Middle East (the only region other than Africa without a synchrotron) [3]. Rest is all history: BESSY-I was relocated to Jordan and the synchrotron laboratory with the epic name of SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) was put under the auspices of UNESCO. SESAME, now in the advanced stages of completion, has evolved from a vision to a system [4]. Fubini shall be missed by his friends and collaborators who had the great opportunity of knowing him and of interacting with him. Fubini accomplished in producing three “generations” of eminent theoretical physicists: Sergio Fubini was the research supervisor of Gabriele Veneziano, who was the research supervisor of Henry Tye, who was the research supervisor of Keith Dienes! Fubini’s name is forever linked with MESC and SESAME. Fubini is survived by his wife Marina and daughter Emma Kusner.

#### References

- [1] Roman Jackiw, *Arabs, Israelis and Westerners attend first Sinai physics meeting*, *Physics Today*, **49** (2), 11-13 (February 1996).
- [2] Roman Jackiw and Sameen Ahmed Khan, *Fubini and Salam inspired plans for Mideast synchrotron*, *Physics Today*, **53** (1), 78 (January 2000).
- [3] Sameen Ahmed Khan, *The Middle East synchrotron is launched; Armenian synchrotron; to launch the African synchrotron programme*, *AAPPS Bulletin*, **13** (2), pp. 35-36 (April 2003).
- [4] SESAME Website: <http://www.sesame.org.jo/>.

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