

LNF Spring School “Bruno Touschek”, 2004 Edition.

The IX Edition of the LNF Spring School “Bruno Touschek” was held in Frascati from May 17th to May 21st. Since its inception in 1996, the School has been instrumental in training young researchers for the activity at DAPHNE, but it has not been limited to DAPHNE physics (see <http://www.lnf.infn.it/conference/lnfss/>). This year the School was dedicated to flavour physics in general, and was attended by about 40 young researchers from Italian and European Universities. The lecturers included Aneesh Manohar from University of California at San Diego, Andrzej Buras from Munich Technical University, Ikaros Bigi from Notre Dame University, Antonio Masiero from Padova University, Augusto Ceccucci from CERN and Chris Sachrajda from Southampton University. Experimental results from B-factories were presented by Riccardo Faccini from University of Rome, while Francesco Bedeschi presented B and D physics from the Tevatron. The future of flavour physics was presented in seminars by Franco Forti from Pisa and Paola Gianotti from INFN Frascati. The lectures spanned from rare K decays to latest results from BaBar, from chiral perturbation theory approach to lattice calculations. In the young researcher session, KLOE recent results on the measurement of the hadronic cross-section, rare kaon decays and the K_S branching ratio in three π^0 were presented. In addition to lectures and seminars, the School traditionally has a historical session, with distinguished speakers to mark special occasions. This year, there were two historical highlights: the recently completed film “Bruno Touschek e l’Arte della Fisica” by Luisa Bonolis and Enrico Agapito, and a session on “Frascati and the November Revolution” with a round table discussion on how the ADONE machine increased its design energy to reach the J/ψ production threshold. The film on Bruno Touschek has been produced by INFN and was shown for the first time on May 21st to the School students and lecturers. The film describes the life and accomplishments of Bruno Touschek through a series of interviews to physicists who have known him well, like Carlo Bernardini, Nicola Cabibbo, Carlo Rubbia, Giorgio Salvini among them. All along, the story of the first e⁺e⁻ machine AdA, proposed by Touschek in 1960 is told by the protagonists of that adventure. The film, which is one and a half hour long, is in Italian (the English version is on the way) and includes a large number of hitherto undisclosed documents and photographs of Bruno Touschek. The film is the first extended document on Bruno Touschek’s life since the biography [1] written by Edoardo Amaldi, soon after Touschek’s death in 1978, and is directed to the public interested in science, including high school students or university undergraduates. The other historical session was held on the last day of the School to mark the J/ψ observation in ADONE thirty years ago. A short TV movie from 1974 was shown, Giorgio Bellettini, director of Frascati at the time, told how he heard about the discovery first at Brookhaven and then at SLAC. At the round table, following Bellettini’s talk, Enzo Iarocci, Mario Greco, Sergio Tazzari and Giorgio Salvini recalled how the Frascati Laboratory reacted to the news from the West Coast and was able, in three days, to increase the ADONE beam energy and see the J/ψ peak.

[1] E. Amaldi, *The Bruno Touschek Legacy*, CERN 81-19, 23 decembre 1981.

G. Pancheri, Frascati, June 2004.



Fig.1 Students and lecturers of the LNF Spring School “Bruno Touschek” gather outside the High Energy building in INFN Frascati National Laboratories.

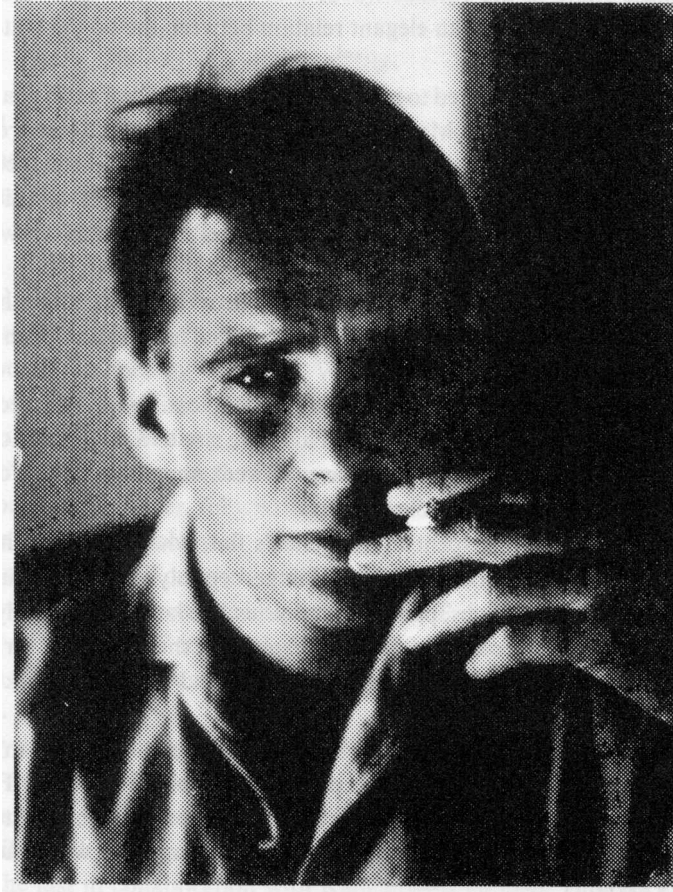


Fig. 2 A 1955 photograph of Bruno Touschek in 1955, whose personality and works have been described in the recently completed movie “Bruno Touschek e l’Arte della Fisica” by Luisa Bonolis and Enrico Agapito, shown at the Spring School on May 19th, 2004.



Fig. 3 A still frame from a RAI TV interview of Giampaolo Murtas (at the blackboard) , in Frascati, on November 13th, 1974, just after the J/ψ observation. At the center one can distinguish a young Enzo Iarocci.