

## CURRICULUM VITAE

Prof. Dr. **LEANDAR LITOV**



Associate Professor in Particle Physics  
Head, Atomic Physics Department  
Faculty of physics,  
University of Sofia "St. Kliment Ohridski"  
Blvd. James Bourchier 5  
1164 Sofia  
Bulgaria  
e-mail: [Leandar.Litov@cern.ch](mailto:Leandar.Litov@cern.ch)  
[litov@phys.uni-sofia.bg](mailto:litov@phys.uni-sofia.bg)

### **Personal data:**

Born in Sofia, Bulgaria, on 11.09.1955

### **Education:**

1970–1973 High School „G.S. Rakovski“, Sofia Physics- and mathematics class, IT-specialization

1973–1975 compulsory military service

1975–1980 University of Sofia, Faculty of Physics, Nuclear and particle physics

1990, Ph D Joint Institute for Nuclear Research JINR–Dubna, Russia

1997, Habilitation University of Sofia, Faculty of Physics, Particle and nuclear physics

### **Academic Career:**

Research Associate:

1979–1980 Laboratory for Theoretical Physics, JINR–Dubna, Russia

1980–1981 Institute for Nuclear Research and Nuclear Energy - Sofia

1981–1983 Laboratory for Theoretical Physics, JINR–Dubna, Russia

1983–1990 Laboratory for Nuclear Problems, JINR–Dubna, Russia

Assistant Professor:

1985-1991 Atomic Physics Dept., University of Sofia "St. Kl. Ohridski"

Head Assist. Professor:

1991-1997 Atomic Physics Dept., University of Sofia "St. Kl. Ohridski"

Associate Professor as of 1997 Atomic Physics Dept., University of Sofia "St. Kl. Ohridski"

Scientific Associate 2003 – 2005 CERN, PH Department

Head of Department as of 2007 Atomic Physics Dept., University of Sofia "St. Kl. Ohridski"

### **Fields of expertise:**

- A. Design and construction of experimental equipment
- B. Monte Carlo simulation and data analysis
- C. Theoretical research in the field quantum physics
- D. Computer drug design

**Publications:** 131 papers cited more than 1200 times

### **Awards:**

1986 First Prize of JINR for the best experimental proposal.

1990 First Prize of JINR for a series of papers on investigation of colour-screening effects in hadron-nucleus interactions.

2005 Second Prize of JINR for measurement of form-factors of  $Ke_3$  decays.

2007 Second Prize of Scientific and Educational Expo, Plovdiv, for "Virtual Screening and computer simulations for drug design".

### **Science-management experience:**

Establishing of the Particle Physics Group at the University of Sofia, its supervision and management (including both material and human resources).

Organization of Bulgarian participation in particle physics experiments (CMS, NA48, NA49, NA62).

Organization of conferences and workshops.

Team-work organization at big international research centers (11 years at JINR, Dubna; 14 years at CERN).

Organization and supervision of the (certified) Laboratory on Particle physics in Sofia.

Organization and supervision of a Grid laboratory at Sofia University.

Supervision and management of large-scale research projects (for details, see below).

### **Offices held:**

Member of the Scientific Council of the Laboratory for Nuclear Problems of JINR, Dubna (1987–1990).

Member of the Expert Commission on HEP of the Laboratory for Nuclear Problems of JINR, Dubna (1987--1990).

Member of the Scientific Council of the Laboratory for Particle Physics of JINR, Dubna (1989–1990).

Member of Bulgarian National Commission for collaboration with JINR, Dubna (1998–1999).

Member of Bulgarian National Commission for collaboration with CERN (1999–2000 and since 2006).

Member of the CMS Collaboration Board (since 1993).

Member of the CMS RDMS (Russia and Dubna Member States) Collaboration Board (since 1995).

Member of European Commission for Future Accelerators (ECFA) (since 1999).

Member of Bulgarian National Commission on HEP (since 2002).

Member of NA62 Steering Committee (since 2006).

### **Supervision of research projects (current):**

- ◆ CMS, on the part of the University of Sofia / Ministry of Science and Education.
- ◆ CMS-related R&D work / Joint research project Bulgaria – JINR.
- ◆ NA48 / JINR, Dubna.
- ◆ Rare kaon decays / Bulgarian National Science Foundation.
- ◆ Development of Grid infrastructure / Bulgarian National Science Foundation.

### **Pedagogical activity:**

- ◆ Design, organization and supervision of the Masters curriculum in "Nuclear and particle physics" at the University of Sofia.
- ◆ General course on "Particle physics».
- ◆ Specializing course "The standard model of electroweak and strong interactions".
- ◆ Specializing course "Beyond the Standard Model".
- ◆ Supervision of diploma- and PhD students (26 and 10, resp.).
- ◆ "Introduction to Particle Physics" — University textbook in preparation.
- ◆ Supervision of the annual Open-Day programme in HEP at Sofia University, frequent popular lectures for the pupils from the National School for Natural Sciences and for physics students in the first semesters.

### **Short-term visits:**

IHEP – Serpukhov, Russia 1983–1990 3–5 months/year.

CERN since 1992 2–8 months/year.

Talks and invited talks at many international conferences, schools and workshops.