

# BRUNO TOUSCHEK 100 YEARS

2-4 December, 2021

## 2 December: Dipartimento di Fisica, Sapienza

08:30-09:00 Registration and Green Pass control

### Morning Session 09:00-13:00

Chair Paolo Mataloni

09:00-10:00 **Welcome**  
Direttore Dipartimento di Fisica  
Presidente INFN  
Direttore Sezione INFN Roma1  
Direttore Forum Austriaco di Cultura  
Francis Touschek

10:00-10:30 **Bruno Touschek (1921-1978)**  
Luisa Bonolis, 30'

10:30-11:00 **Ada at Orsay**  
Jacques Haissinski, 30' (Zoom)

11:00-11:30 **Touschek and Statistical Mechanics**  
Giancarlo Rossi, 30'

11:30-11:50 **Coffee Break**

11:50-12:30 **The Era of Colliders**  
Carlo Rubbia, 40'

12:30-13:00 **ADONE, Asymptotic Freedom, QCD**  
Giorgio Parisi, 30'

13:00-15:00 **Shows** (posters, photos, movies) and **Lunch Break**

### Afternoon Session 15:00-18:30

Chair Marcella Diemoz

15:00-15:30 **Standard Theory and Theoretical Physics in Roma**  
Luciano Maiani, 30'

- 15:30-16:10     **Physics with LEP**  
Ugo Amaldi, 40' (Zoom)
- 16:10-16:30     **Coffee Break**
- 16:30-17:00     **Dual Models, from Quarks to Gravitons**  
Gabriele Veneziano, 30'
- 17:00-17:30     **QCD and Super Computers**  
Guido Martinelli, 30'
- 17:30-18:30     **Recollections and Discussion**

## 3 December: Laboratori Nazionali di Frascati

09:00-09:45 Registration and Green Pass control

### Morning Session 09:45 -11:30

Chair Giulia Pancheri

09:45-10:00 **Welcome**

Fabio Bossi, 15'

10:00-10:30 **Physics at Frascati with Ada and Adone**

Mario Greco, 30'

10:30-11:00 **Accelerators at LNF. From Ada to Eupraxia**

Andrea Ghigo, 30'

11:00-11:30 **Accelerator Physics at Orsay**

Achille Stocchi, 30'

11:30-12:00 **Coffee break**

### Morning Session 12:00 -13:20

Chair Pierluigi Campana

12:00-12:40 **High gradient acceleration**

Ralph Assmann, 40'

12:40-13:20 **Technical challenges for the future colliders**

Lucio Rossi, 40'

13:20-14:45 **Lunch break**

### Afternoon session 14:45-16:30

Chair Alessandro Gallo

14:45-15:25 **Muon collider**

Daniel Schulte, 40'

15:25-16:05 **High brilliance synchrotron radiation machines**

Pantaleo Raimondi, 40'

16:05-17:00 **Naming Ceremony of the LNF Visitor Center**

with Francis Touschek, 20'

17:00-18:00 **Visitor Centre guided tours and Coffee break**

18:00-19:00 **Public Event**, Antonio Zoccoli, Presidente INFN

## 4 December: Accademia Nazionale dei Lincei, Roma

09:00-09:30 Registration and Green Pass control

### Morning Session 09:30-13:00

Chair Giovanni Gallavotti

09:30-10:10 **Welcome**  
President of Accademia dei Lincei  
Vice President of Accademia dei Lincei  
~~Ambassador of Austria~~

Francis Touschek

10:10-10:40 **Bruno Touschek (1921-1978)**

Giulia Pancheri, 30'

10:40-11:10 **The Making of Adone**

Claudio Pellegrini, 30' (Zoom)

11:10-11:30 **Coffee Break**

11:30-12:00 **Spontaneous Symmetry Breaking in Particle Physics**

Giovanni Jona-Lasinio, 30'

12:00-12:30 **String Theory**

Paolo Di Vecchia, 30'

12:30-14:00 **Shows** (posters, photos, movies) and **Lunch Break** (catering)

### Afternoon Session 14:00-18:50

Chair Giovanni Jona-Lasinio

14:00-14:40 **Multimessenger Astronomy**

Marica Branchesi, 40'

14:40-15:10 **Knowledge and Technology Transfer from HEP**

Manuela Cirilli, 30'

15:10-15:30 **Coffee Break**

### The Future of High Energy Physics 15:30-18:30

15:30-16:10 **High Energy Physics and the European Strategy,**

Gian Giudice, 40'

**16:10-16:50** **Circular Collider in China,**  
Yifang Wang, 40' (Zoom)

**16:50-17:30** **High Energy Linear Colliders,**  
Steinar Stapnes, 40'

**17:30-18:10** **High Energy Neutrinos,**  
Sergio Bertolucci, 40'

**18:10-18:30** **Discussion, 20'**

**18:30-18:50** **Recollections and Concluding Remarks by Luciano Maiani**