



PROGRAM FOR THE FUNDAMENTALS
Summer School in High-Energy and Gravitational Physics
16 – 20 SEPTEMBER 2024 IN SPLIT, CROATIA

MONDAY, 16TH OF SEPTEMBER

- 10:30 – 11:15 **REGISTRATIONS**
- 11:15 – 11:45 **COFFEE BREAK**
- 11:45 – 12:00 **OPENING**
- 12:00 – 13:15 **GORAN SENJANOVIĆ**
Left-right symmetry in nature
- 13:15 – 15:00 **LUNCH BREAK**
- 15:00 – 16:15 **PAULA-IRENE VILLA BRASLAVSKY**
Simply the best? - On the relevance of social positions
and normative assumptions in academic careers
- 19:00 **WELCOME DRINKS**

TUESDAY, 17TH OF SEPTEMBER

- 10:00 – 11:15 **TINA POTTER**
Seeing the invisible; the Dark Matter puzzle
- 11:15 – 11:45 **COFFEE BREAK**
- 11:45 – 13:00 **BLAZENKA MELIC**
Flavour physics in a triangle
- 13:15 – 15:30 **LUNCH BREAK**
- 15:30 – 16:45 **KRISTOF SCHMIEDEN**
The quest for Axions
– Attempting to clean up dark matter and more
- 18:00 **SPLIT CITY TOUR**

WEDNESDAY, 18TH OF SEPTEMBER

- 10:00 – 11:15 **ZVONIMIR VLAH**
Prospects in precision cosmology
in light of upcoming observations
- 11:15 – 11:45 **COFFEE BREAK**
- 11:45 – 13:00 **JIA LIU**
AI in Physics: A Rapid Introduction
to Revolutionary Tools
- 13:15 – 15:00 **LUNCH BREAK**
- 15:00 – 16:15 **HITOSHI MURAYAMA**

TBA

16:15 – 16:45 COFFEE BREAK

16:45 – 19:00 POSTER SESSION

THURSDAY, 19TH OF SEPTEMBER

10:00 – 11:15 MISAO SASAKI

Primordial Inflation: Known Knowns,
Known Unknowns, and Unknown Unknowns

11:15 – 11:45 COFFEE BREAK

11:45 – 13:00 EDWARD W. KOLB

Sailing the Seething Sea of Quantum Uncertainty

13:15 – 15:30 LUNCH BREAK

15:30 – 16:45 DIETER LÜST

Swampland and Dark Relations

20:00 SPEAKER DINNER

FRIDAY, 20TH OF SEPTEMBER

10:00 – 11:15 YARON OZ

Unraveling Turbulence: Modern Viewpoints
On An Unsolved Problem

11:15 – 11:45 COFFEE BREAK

11:45 – 13:00 ALI CHAMSEDINNE

Mimetic Gravity: A Review

13:15 – 15:30 LUNCH BREAK

15:30 – 16:45 VIATCHESLAV MUKHANOV

Gravitationally dominated instantons

17:15 – 17:30 CLOSING

18:00 PUBLIC TALK BY ANDREAS BURKERT

"Big Bang and Star Dust:
Uncovering our Cosmic Origin"

19:30 BAJBAJ PARTY