



Trans-European School of High Energy Physics



Bezmiechowa Górna, Bieszczady mountains, Poland

July 14 - July 22, 2023

Welcome !



Bringing together European (and beyond) students

Teaching various aspects of high-energy physics, mainly focusing on experimental particle physics

...with the aim of reinforcing and encouraging the East-West Europe (and beyond...) scientific and pedagogical links.

After 2009 and 2015: 2023 back to Poland !

2017: Ljubljana, Slovenia

2018 Poltava, Ukraine

2019 Volyn region Ukraine





LECTURES

| | |
|--|--|
| SM | Alexander Korchin |
| SM problems gauge and Flavours & BSM ideas | Stéphane Monteil |
| Detector Instrumentation | Sergey Barsuk Clara Gaspar Maxim Titov |
| Statistics | Stéphane Monteil |
| Feynman Graphs | Sebastian Sapeta |
| Exercises in data analysis (hands-on) | Rafał Staszewski |

HANDS ON SESSIONS

FORMER STUDENTS PRESENTATIONS

Szymon Kukulak
Rafal Maciula
Klaudia Maj
Iwona Sputowska
Valeriia Zhovkovska

TOPICAL HIGHLIGHTS

| | |
|------------------------------|---------------------|
| Neutrinos Physics | Marie-Helene Schune |
| Cabibbo & Flavours emergence | Achille Stocchi |
| Cosmologie | Pierre Astier |
| QCD / Diffraction | Wolfgang Schafer |

SEMINARS

Mariola Kłusek-Gawenda : photon-photon fusion in heavy-ion collisions
Antoni Marcinek : Electromagnetic effects on charge particles
Alex Fomin : the PERLE project



| | Saturday July 15 | Sunday July 16 | Monday July 17 | Tuesday July 18 | Wednesday July 19 | Thursday July 20 | Friday July 21 |
|-------------|--|--|--------------------------|----------------------------------|----------------------|---------------------|-----------------------------------|
| 09:00-10:00 | Welcome | SM3 | Detectors2 | Topical Highlight1 | Topical Highlight2 | Topical Highlight3 | Topical Highlight4 |
| 10:00-11:00 | SM1 | SM4 | Detectors3 | Topical Highlight1 | Topical Highlight2 | Topical Highlight3 | Topical Highlight4 |
| 11:00-11:30 | Break | Break | Break | Break | Break | Break | Break |
| 11:30-12:30 | SM2 | BSM1 | Statistic1 | Topical Highlight1 | Topical Highlight2 | Topical Highlight3 | Topical Highlight4 |
| 12:30-13:30 | Detectors1 | BSM2 | Statistic2 | Detectors4 | Seminar1 | Seminar2 | Students presentation |
| 13:30-15:00 | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch |
| 15:00-16:00 | Hands-on Team1 / profs Team2 | Hands-on Team2 / profs Team1 | Students work with profs | Detectors5 | Excursion | Seminar3 | Students presentation until 17:30 |
| 16:00-17:00 | Hands-on Team1 / profs Team2 | Hands-on Team2 / profs Team1 | Students work with profs | Conference by former students | | Feynman Graph1 | |
| 17:00-17:30 | Break | Break | Break | Break | | Break | Break |
| 17:30-19:00 | Hands-on Team2 /Students work with profs – team1 | Hands-on Team1 /Students work with profs – team2 | Football | Conference by former students | | Feynman Graph2 | 18:30 Summary |
| 19:30-20:30 | Dinner | Dinner | Dinner | Dinner | School Dinner ? | Dinner | Dinner |
| 20:00-22:00 | | CERN : Past, Present and Future by C. Schaffer | | Discussions with former students | | | |



14th Trans-European School of High Energy Physics
Bezmiechowa Górna, Poland
July 14–22, 2023

Experimental Particle Physics
Standard Model and Beyond
Statistical Methods
Detector Instrumentation

Topical seminars
Practical sessions
Discussion sessions
Students' conference

Organizing committee
S. Barsuk (CNRS/PSaclay/IJCLab, France)
C. Bourge (CNRS/PSaclay/IJCLab, France)
M. Kłusek-Gawenda (IFJ PAN, Poland)
M. Łuszczak (Univ. Rzeszów, Poland)
S. Monteil (CNRS/LPC-Clermont, France)
M.-H. Schune (CNRS/PSaclay/IJCLab, France)
R. Staszewski (IFJ PAN, Poland)
A. Stocchi (CNRS/PSaclay/IJCLab, France)
Contact: teshep23@ijclab.in2p3.fr

TES HEP committee
F. Beaudette (CNRS/LLR, France)
O. Bezshyko (TSNUK, Ukraine)
G. Calderini (CNRS/LPNHE, France)
S. Fomin (NSC KIPT, Ukraine)
L.O. Golinka-Bezshyko (TSNUK, Ukraine)
B. Grynyov (ISMA, Ukraine)
A. Yu. Korchin (NSC KIPT, Ukraine)
F. Ledroit (CNRS/LPSC, Univ. Grenoble, France)
T. Lesiak (IFJ PAN, Poland)
J. Mnich (CERN, Switzerland)
N.F. Shul'ga (NSC KIPT, Ukraine)
V. Sharvy (CEA/IRFU, France)
M. Titov (CEA/IRFU, France)
A. Zolotarova (CEA/IRFU, France)

Deadline for applications: May 31, 2023
teschool23.ijclab.in2p3.fr

Please look at the list of professor/students groups

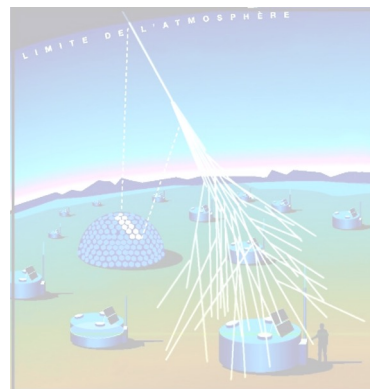
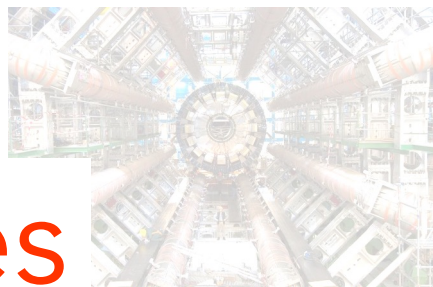
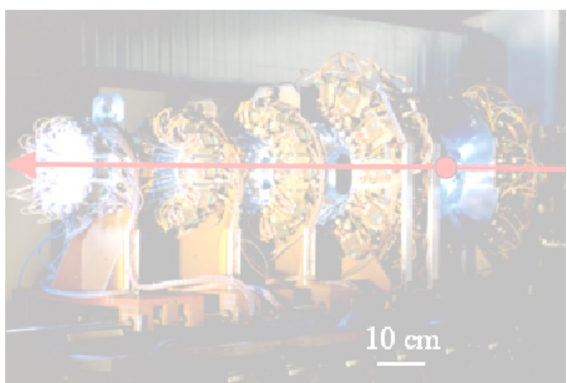
And the lists of groups for practical sessions

Practical things

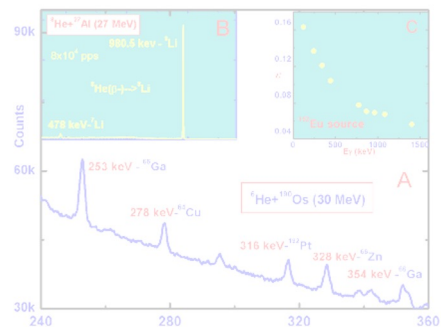
Please check the announcement in the room
Coffee breaks are one floor up

Please do not use your laptop during the lectures

On the table: a shopping list (not going every day!) is something is urgently needed . Write your name and what is needed



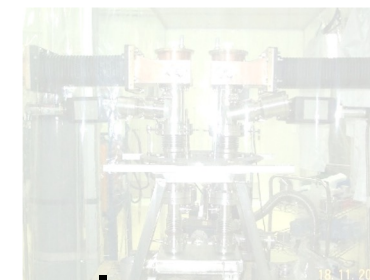
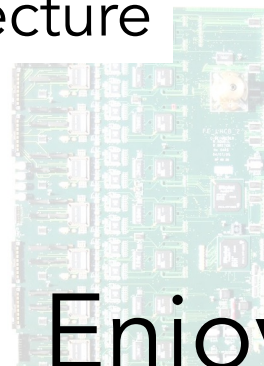
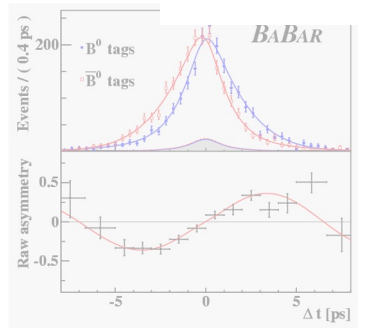
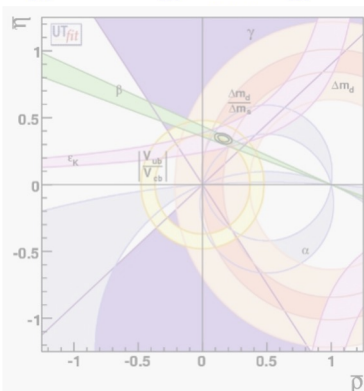
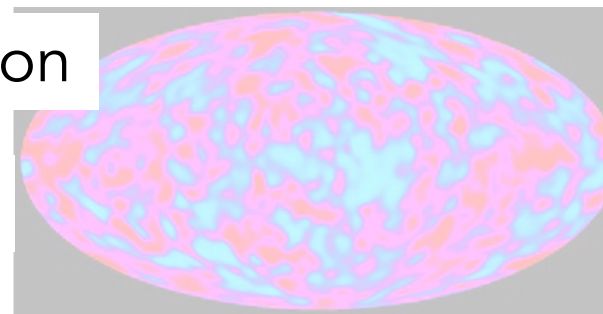
Prizes



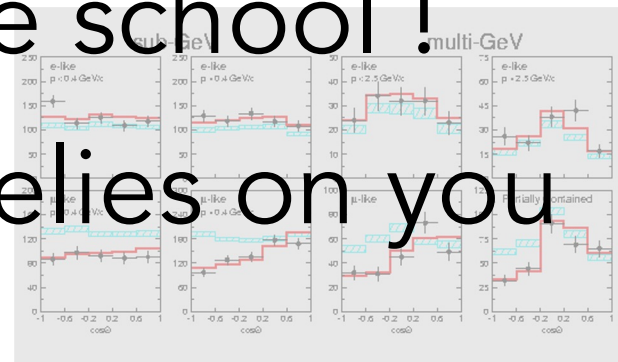
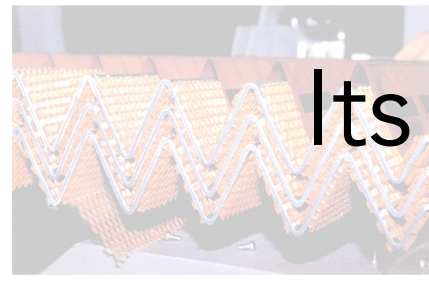
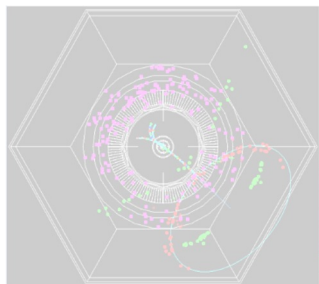
Best student presentation

Best student questions

Best lecture



Enjoy the school !



Its success relies on you