



European Centre for Theoretical Studies in Nuclear Physics and Related Areas
Gert Aarts (ECT* Director)

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- Main STRONG2020 activity: support for workshops
 - Interrupted by COVID: 2020 was a difficult year for ECT*
 - 2021: back on track with a full programme – virtual and now hybrid
 - 2022: full programme scheduled – continue in hybrid mode for now

ECT* in 2020

- COVID interrupted the ECT* programme drastically
- All workshops postponed
- After a period of adjustment:
ECT* colloquia on topics of postponed meetings
- ECT* Youtube Channel
- One STRONG2020 virtual meeting:
5-16/10
Spin and Hydrodynamics in Relativistic Nuclear Collisions

ECT* COLLOQUIA

Due to the COVID-19 pandemic, a large fraction of the ECT* workshops initially planned for 2020 have been postponed to 2021.

To introduce and promote the topic of the postponed workshops to a wider audience, the ECT* has started last summer with a series of "colloquia style" presentations of about one hour each on the topics of the postponed workshops.

The recorded presentations are available on the [YouTube Channel | ECT* Colloquia](#)

STRANU: HOT TOPICS IN STRANGENESS NUCLEAR AND ATOMIC PHYSICS
Colloquium by Catalina CURCEANU and Kristian PISCICCHIA
[Video Talk](#)

HEAVY-FLAVOR TRANSPORT IN THE QUARK-GLUON PLASMA
Colloquium by Ralf RAPP
[Video Talk](#)

NEUTRON STARS AS MULTI-MESSENGER LABORATORIES FOR DENSE MATTER
Colloquium by Anna WATTS on "The Neutron Star Interior Composition Explorer - and beyond" and Sanjay REDDY on "Dense Matter in Neutron Stars and its Implications for Multi-Messenger Astronomy"
[Video Talk](#)

THE STRONG INTERACTION: FROM THE LHC TO THE HIGGS FACTORY AND BEYOND
Colloquium by Marcel VOS
[Video Talk](#)

GENERALIZED PARTON DISTRIBUTIONS OF LIGHT NUCLEI
Colloquium by Sergio SCOPETTA
[Video Talk](#)

RELATIVISTIC FERMIONS IN FLATLAND: THEORY AND APPLICATION
Colloquium by Lukas JANSSEN on "Emergence of relativistic flatland fermions in systems without fermions"
[Video Talk](#)

KEY REACTIONS IN NUCLEAR ASTROPHYSICS
Colloquium by Aurora TUMINO
[Video Talk](#)

THEORETICAL AND EXPERIMENTAL CHALLENGES IN FLAVOUR HADRONS, HEAVY QUARKONIA AND MULTIQUARK PHYSICS
Colloquium by Mikhail BARABANOV and Bruno EL-BENNICH

ECT* in 2021: back with a full programme

- ✓ 18 workshops: virtual and now hybrid

Training of early-career researchers (virtual schools):

- ✓ Doctoral Training Programme: **High-Energy and Nuclear Physics within Quantum Technologies**
28/6-23/7, 28 participants
- ✓ TALENT school : **Machine Learning applied to Nuclear Physics, Experiment and Theory**
19-30/7, 64 participants

STRONG2020 supported meetings in 2021: virtual meetings

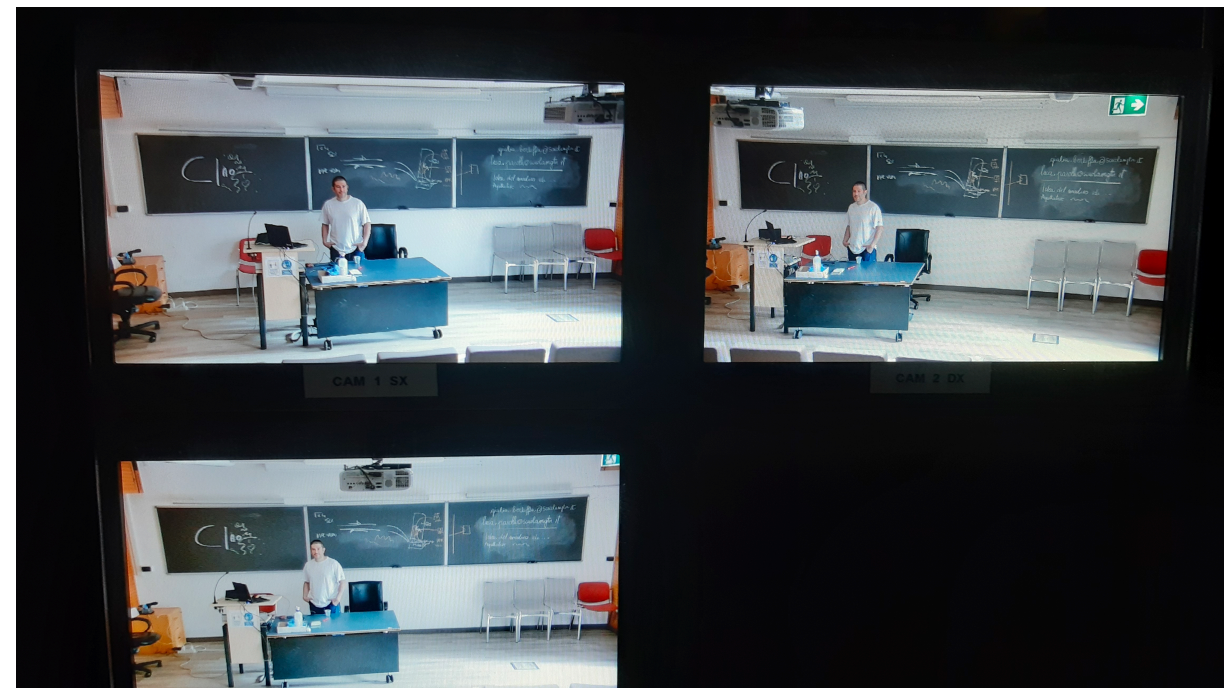
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- 19-23/4 Mass in the Standard Model and Consequences of its Emergence
 - 26-30/4 Heavy-Flavor Transport in QCD Matter
 - 20-21/5 Heavy Ions and New Physics
 - 24-28/5 STRANU: Hot Topics in STRANgeness NUclear and Atomic Physics
 - 29/6-1/7 Saturation and Diffraction at the LHC and the EIC
 - 05-09/7 Relativistic Fermions in Flatland: theory and application
 - 06-10/9 LFC21: Strong Interactions from QCD to New Strong Dynamics at LHC and Future Colliders
 - 13-17/9 Tackling the real-time challenge in strongly correlated systems: spectral properties from Euclidean path integrals

STRONG2020 supported meetings in 2021: hybrid meetings

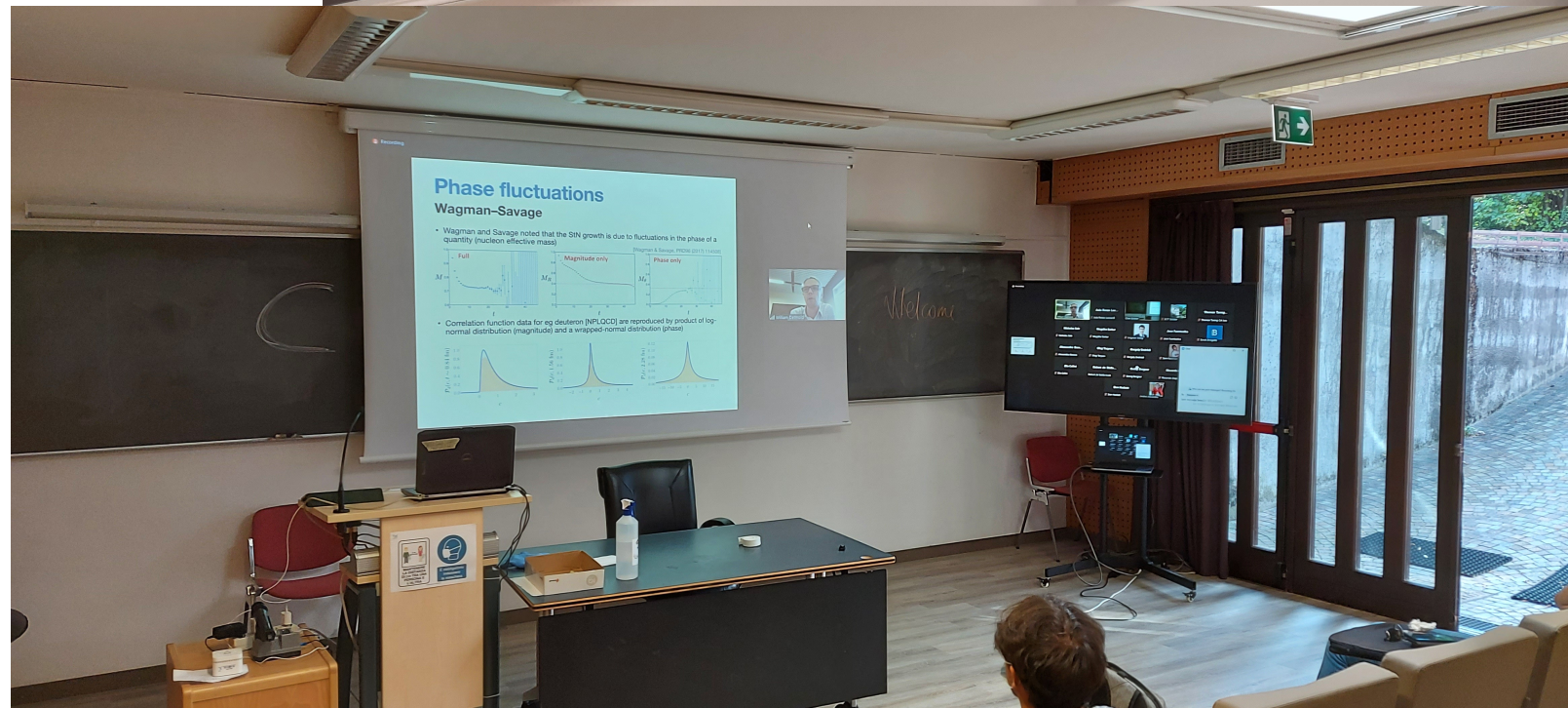
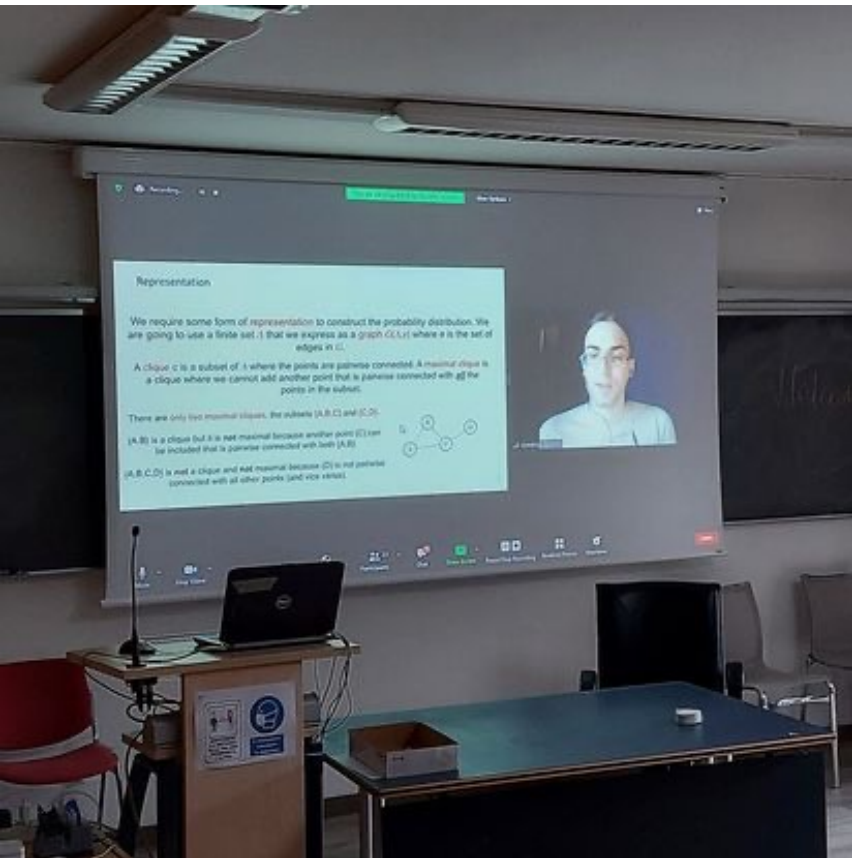
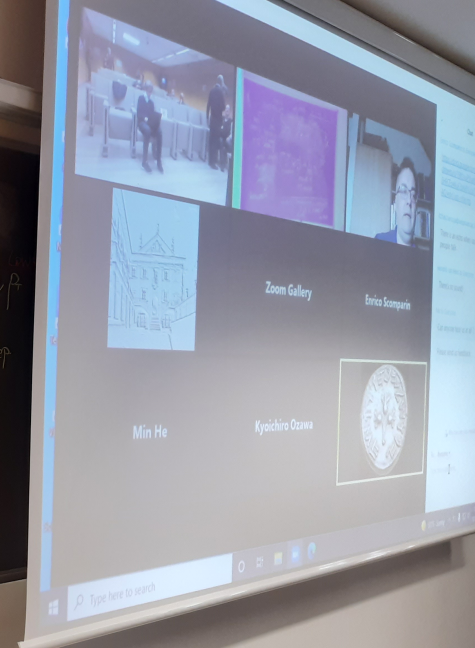
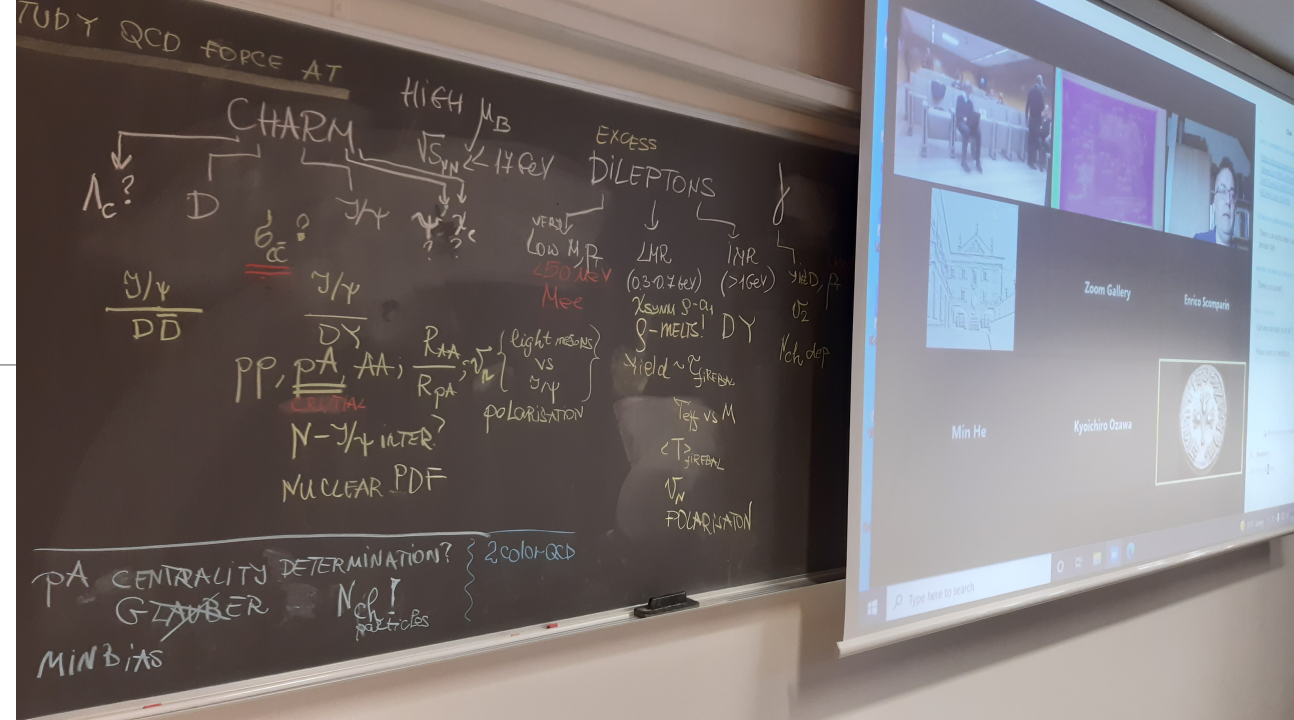
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- 27/9-1/10 Machine Learning for High Energy Physics, on and off the Lattice
 - 11-15/10 Exploring High-MuB Matter with Rare Probes
 - 15-19/11 Quark-Gluon Plasma Characterisation with Heavy Flavour Probes

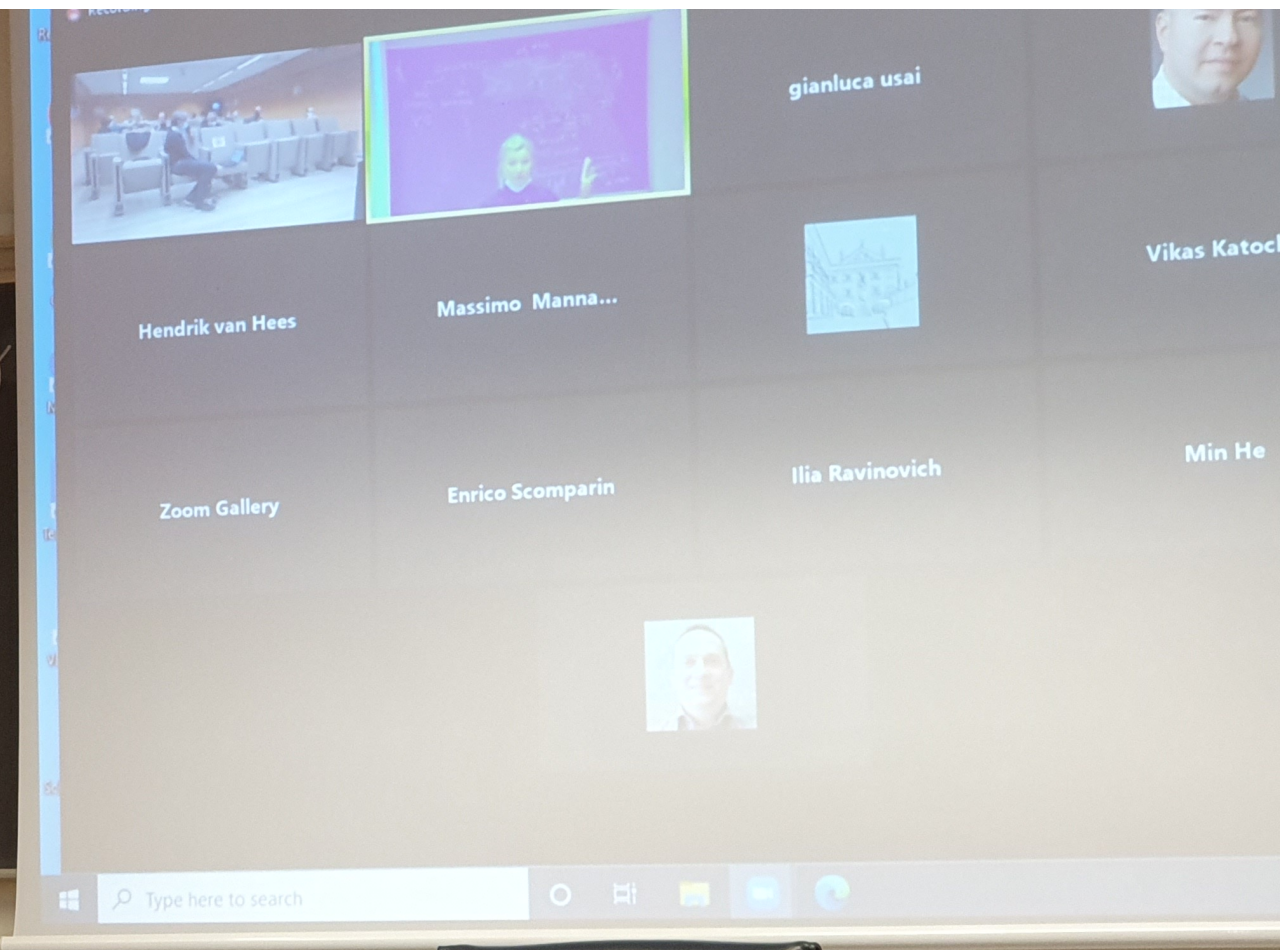
Investment: convert *Aula Renzo Leonardi* into hybrid meeting room
 cameras and microphones

Aula Renzo Leonardi: Hybrid meetings



Some impressions





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We continue with a full programme:

- 22 workshops scheduled
- doctoral training programme
- in hybrid mode
- number of permitted in-person participants will depend on COVID developments
- aim to keep increasing occupancy, maintaining hybrid participation



I want to thank the community for its continuous support for ECT*.

It is very important, especially in unusual times, as we have experienced over the past 20 months.