

Holmganga: CLASH Workshop 2023



Monday, 26 June 2023 - Friday, 30 June 2023

Helsingborg, Sweden

Scientific Programme

Jet quenching

Why don't we see jet quenching in proton--proton collisions?
How important is system size for jet quenching?
What observables are particularly sensitive to jet quenching?
How do these observables depend on system size, particularly for small systems?
What observables are easy to compare between theory and experiment?

Participants assigned to this theme:

Liliana Apolinario
Jasmine Brewer
Smita Chakraborty
Raghav Kunnawalkam Elayavalli
Isobel Kolbe
Chiara Le Roux
Torbjörn Lundberg
Guilherme Milhano
Guy Paic
Andreia Ramnath
Korinna Zapp

Particle production & freeze-out

Does strangeness enhancement come from canonical suppression, strings or something else? Can we find an observable for this?
Do we have a common or flavour-dependent freeze-out in small systems? What could be a reasonable check for this?
How reasonable are fits from models (with freeze-out) to small systems?
What can we learn from charm, QCD couplings and charm balance?
Freeze-outs: are there single or multiple? Are they flavour dependent? Are they strangeness dependent?
Radial boost: How reliable are blast-waves? Are there any other ways?

Participants assigned to this theme:

Sumit Basu
Rene Bellwied
David Dobrigkeit Chinellato
Oscar Garcia-Montero
Yuuka Kanakubo
Adrian Fereydon Nassirpour
Claudia Ratti
David Silvermyr
Torbjörn Sjöstrand
Antonio Ortiz Velasquez

Correlations & fluctuations

What is the origin of non-zero v_n in proton--proton (and proton--lead) collisions?

Are fluctuations only due to initial stages, or are they affected by the expansion of the QGP?

Can we separate QGP contributions to fluctuations from initial stages?

Do/should v_n fluctuations in proton--proton collisions show similar trends as in lead--lead collisions?

What are possible sources of long-range correlations in proton--proton and proton--lead collisions?

Balance function: Is conservation of colour charges local or global? Flow UPC/DIS?

Participants assigned to this theme:

Peter Christiansen
Alexandru Florin Dobrin
Donghai Liu
Aleksas Mazeliauskas
Tapan Nayak
Roman Nepeivoda
Alice Ohlson
Jean-Yves Ollitrault
Claude Pruneau
Nicola Rubini
Joey Staa

CGC versus Lund strings

What are experimental and phenomenological consequences of CGC medium modifications?

What is the "smoking gun signature" of saturation and can we observe it?

How can we incorporate the CGC in Pythia? How does the Lund string picture differ from the weak coupling/CGC picture?

Participants assigned to this theme:

Christian Bierlich
Francois Gelis
Gösta Gustafson
Tuomas Lappi
Leif Lönnblad
Yasushi Nara
Jarkko Peuron
Tanguy Pierog
Pragya Singh
Marius Uthheim