

Table of Contents

TH insitute "Novel tools and observables for jet physics in heavy-ion collisions" and the 5th Heavy Ion Jet Workshop.....	1
Working groups.....	1
WG1) Precision jet quenching observables.....	1
WG2) Jet quenching in substructure/ boosted observables.....	1
WG3) New theoretical tools and MC implementations.....	1
Common discussion points.....	1
Possible internal WG tasks.....	2
Goals of the institute.....	2

TH insitute "Novel tools and observables for jet physics in heavy-ion collisions" and the 5th Heavy Ion Jet Workshop

Welcome to the TWiki of the TH insitute "Novel tools and observables for jet physics in heavy-ion collisions" and the 5th Heavy Ion Jet Workshop

The indico page with talks can be found here: [indico](#)

Working groups

To start up the program, we suggest to organize ourselves into three working groups (WGs):

WG1) Precision jet quenching observables

- *Observables*: jet inclusive spectra, heavy-quark jets, di-jet, hadron-jet, photon-jet, heavy boson-jet, jet energy flow, high-pt hadron data
- how sensitive are these observables to medium effects vs. vacuum/fragmentation effects and fluctuating background?
- jet quenching in small systems: what are the observables?
- **Conveners**: Dennis, Matthew, Yacine

WG2) Jet quenching in substructure/ boosted observables

- *Observables*: multi-prong objects, jet shapes, splitting function, two-/n-prong yields, correlations, heavy-boson decays
- what do we want to learn? can we tag medium-induced bremsstrahlung?
- what are the relevant tools (tagging, pruning, filtering, grooming)?
- how sensitive are these observables to medium effects?
- **Conveners**: Marta, Leticia, Matteo

WG3) New theoretical tools and MC implementations

- vacuum fragmentation
- medium-modifications (energy loss,...)
- (de)coherence effects
- plasma modeling and backreaction
- hadronization
- **Conveners**: Guilherme, Yen-Jie, Konrad

Common discussion points

- conventions for data presentation (exp-exp comparison, exp-theory comparison)
- background subtraction techniques

Possible internal WG tasks

- mini-presentations/discussions
- setting up studies with toy-models & studying constraints from pp physics using generated MC data
- compile data comparisons
- compile model comparisons: what models contain what?
- final statement of interest

Goals of the institute

- Status of perspectives for comparisons of theory predictions with experimental data?
 - ◆ Lisbon accord (RIVET,...)
 - ◆ JetScape
- How far have we come in order to extract properties of the medium?
- Do we want to work more coordinated together in the future?

The WGs work independently during the workshop, and manage their own agendas that include time for individual work and WG meetings.

The WGs listed above are meant to set the stage for the discussions and help us organize. In course of the TH institute, there will be the possibility of re-organizing and modifying the tasks/objectives of the WGs. This TWiki is meant to be updated continuously during the week. There will also be a central blackboard in the TH common room (), where announcements/meetings are being posted.

-- KonradTywoniuk - 2017-07-10

This topic: [Sandbox > HeavyIonJetWorkshop2017](#)
Topic revision: r4 - 2017-07-11 - KonradTywoniuk



Copyright &© 2008-2021 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.
or Ideas, requests, problems regarding TWiki? use [Discourse](#) or [Send feedback](#)