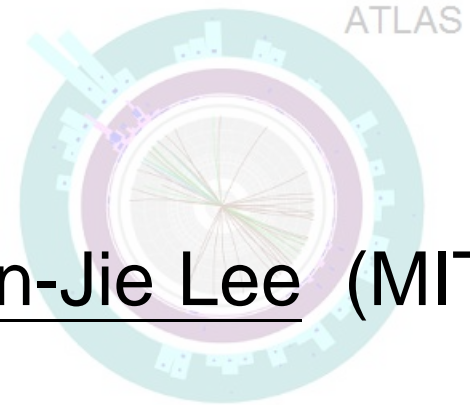
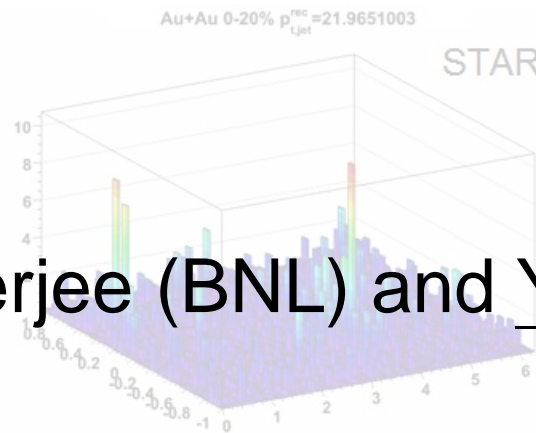


EF07: Heavy Ions



Swagato Mukherjee (BNL) and Yen-Jie Lee (MIT)



Snowmass EF Meeting
August 20, 2020



Letter of Interest (April 1 - August 31, 2020)

- The purpose of letters of interest is to allow Snowmass conveners to see what proposals are coming and to encourage the community to begin studying them. Letters of Interest should give brief descriptions of the proposal and cite the relevant papers to study. These letters will help conveners to prepare the Snowmass Planning Meeting that will take place on **Oct 5-8, 2020 (virtual online meeting)**.
- The letters should be up to 2 pages not including bibliography and should be uploaded by authors [**HERE**](#) between April 1, 2020 and August 31, 2020. An index of submitted letters can be viewed [**HERE**](#). **The deadline is August 31, 2020.**
- The letters will be stored permanently in the Fermilab archive Doc.db shortly after August 31, 2020.

<https://snowmass21.org/loi>

Contribute Papers (April 1, 2020 – July 31, 2021)

- Papers submitted to the Snowmass 2021 Proceedings. These papers may include white papers on specific scientific areas, technical articles presenting new results on relevant physics topics, and reasoned expressions of physics priorities, including those related to community involvement.
- Submitted papers will remain part of the permanent record of Snowmass 2021. More ephemeral articles, including the 2-page “Letters of Interest” requested by the DPF, should be presented through a different process, [explained here](#).

<https://snowmass21.org/submissions/start>

Snowmass Proceedings

- The final output will be:
 - EIC proceedings (jointed EF05-7 effort)
 - HI proceedings (EF07 + contributions from other EF groups)

Important Dates

- Kick-off Town Hall meeting on April 18th <https://indico.fnal.gov/event/23601/>
- Letters of Interest (April 1 - August 31, 2020)
- Contributed Papers (April 1, 2020 – July 31, 2021)
- First community meeting: Oct 5-8, 2020 (online)
- First draft of Topical Group summaries due March 2021
- Final version of written documents due July 2021 Final meeting: July 11-20, 2021 (UW-Seattle) <https://indico.fnal.gov/event/22303/>
- Studies must have concluded before this meeting, and the WG reports finalized
- Updated documents (including Lols) due in November 2021

EF07 Meetings

- May 27: EF07 Kickoff meeting
- June 24: Higgs and BSM in Heavy Ion Collisions (27 unique participants)
- July 1: EF07: Heavy Flavor Physics with High Multiplicity pp and Heavy Ion Collisions (35 unique participants)
- August 4: EF06-07 Joint discussion
- **August 20: EF07: Lol discussion**
- August 21: Status of EF5-7 EIC LOIs
<https://indico.fnal.gov/event/45091/>

LoI @ EIC

- **LoI submission coordinators assigned**
 - **Heavy Flavor @ EIC:** Xin Dong (LBL), Stephen Sekula (SMU), Ivan Vitev(LANL)
 - **Proton tomograph @ EIC for HEP applications:** Timothy Hobbs (SMU), Salvatore Fazio (BNL), Alexey Prokudin (PSU), Alessandro Vicini (Milan)
 - **Gluon saturation @ EIC:** Cyrille Marquet ... (TBC)
 - **EW&BSM @ EIC:** Yulia Furletova (JLAB), Ciprian Gal (SBU), Claire Gwenlan (Oxford)
 - **Jets @ EIC:** Miguel Arratia (UCR), Zhong-Bo Kang (UCLA), Stefan Prestel (Lund)

- **Discussed on August 4th**

- **LoI submission coordinators assigned**
 - Search for New Physics with Heavy Ion Beam: Marco Drewes (Theory) and Andrea Giammanco (CMS).
 - Quarkonia and exotic hadron production in relativistic heavy ion collisions: Matthew Durham (LHCb) and Xiaojun Yao (Theory)
 - Ultra Peripheral Heavy Ion Collisions: Zhangbu Xu (STAR), Jian Zhou (Theory), Mariusz Przybycien (ATLAS/ZEUS)
 - High Density QCD in Small Collision Systems: Jaki Noronhahostler (Theory), Wei Li (CMS/STAR), Dennis Perepelitsa (ATLAS/sPHENIX)
 - Heavy Flavor Production in Heavy Ion Collisions: Gian Michelle Innocenti (ALICE), Jing Wang (CMS), Jin Huang (sPHENIX, TBC)
 - Jet and Jet Substructure in Heavy Ion Collisions: James Mulligan (ALICE), Leticia Cunqueiro Mendez (ALICE), Yi Chen (CMS), Anne Sickles (ATLAS)
 - EW Physics in Heavy Ion Collisions and the Impact to nuclear PDF: Hannu Paukkunen (Theory), Georgios Krintiras (CMS) and Emilien Champon (CMS)
- **Discussion today**

Agenda Today

EF07 Meeting: Lol discussion



Thursday Aug 20, 2020, 1:00 PM → 3:00 PM US/Eastern

Description Join Zoom Meeting
<https://mit.zoom.us/j/94707519671?pwd=ZzRQbElpSGtoNmhDVWxJQlZ0MFRrUT09>

- | | | | | |
|--|-----------|--|-------|--|
| 1:00 PM | → 1:15 PM | News | 🕒 15m | |
| Speakers: Swagato Mukherjee (BNL), Yen-Jie Lee (Massachusetts Institute of Technology) | | | | |
| 1:15 PM | → 1:30 PM | Heavy Flavor Physics with CMS | 🕒 15m | |
| Speaker: Jing Wang (Massachusetts Inst. of Technology (US)) | | | | |
| 1:30 PM | → 1:45 PM | Jet quenching and transverse momentum of jets | 🕒 15m | |
| Speaker: Krzysztof Kutak (Instytut Fizyki Jądrowej (IFJ PAN)) | | | | |
| 1:45 PM | → 2:00 PM | Coffee Break | 🕒 15m | |
| 2:00 PM | → 3:00 PM | Lol discussion | 🕒 1h | |
| Speakers: Andrea Giammanco (Universite Catholique de Louvain (UCL) (BE)), Anne Sickles (University of Illinois at Urbana-Champaign), Dennis Perepelitsa (University of Colorado Boulder), Georgios Konstantinos Krintiras (The University of Kansas (US)), Gian Michele Innocenti (MIT), Jing Wang (Massachusetts Inst. of Technology (US)), Matt Durham (Los Alamos National Lab), Xiaojun Yao (Massachusetts Institute of Technology) | | | | |