

Workshop Series on IR2 & Detector @ EIC

IR2@EIC Preparatory Meeting

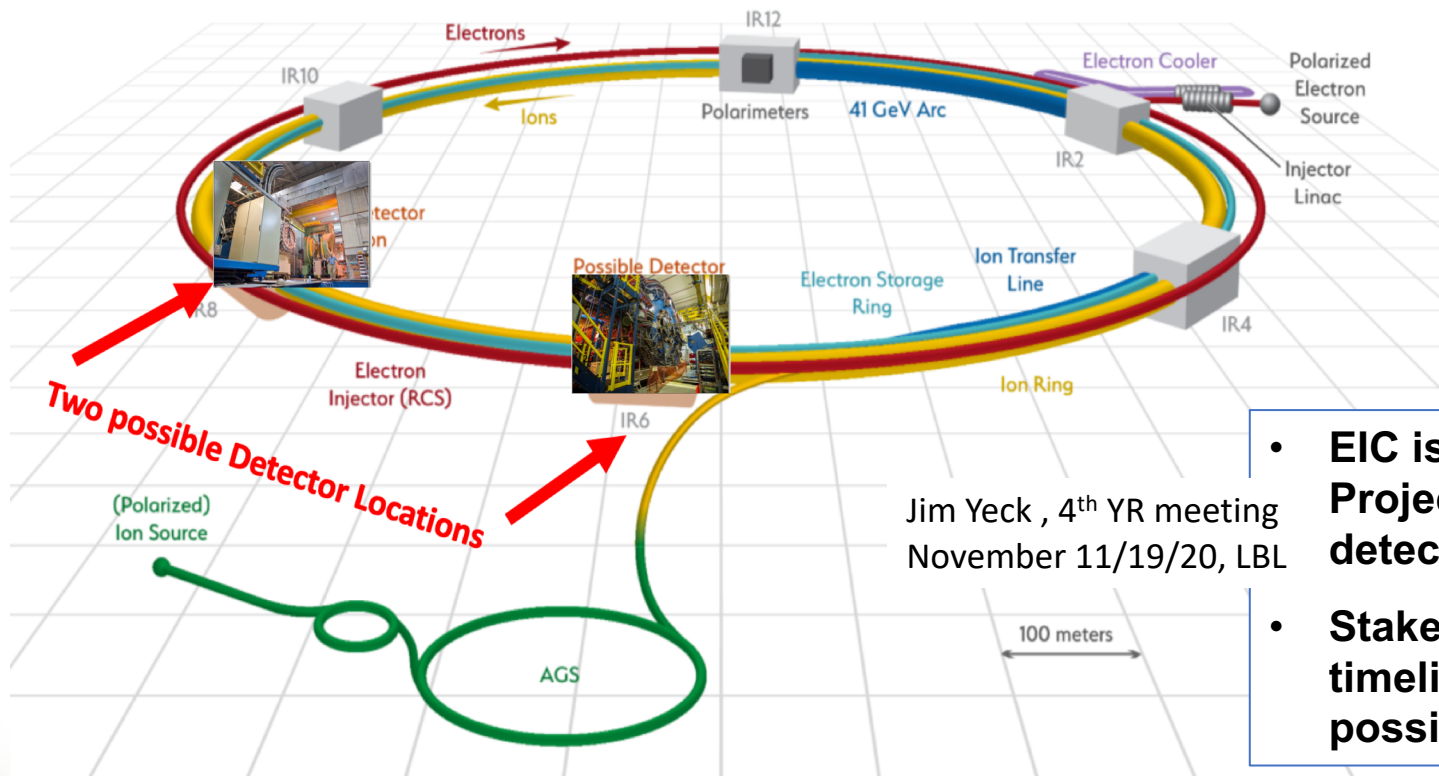
Introductory Remarks

Volker Burkert

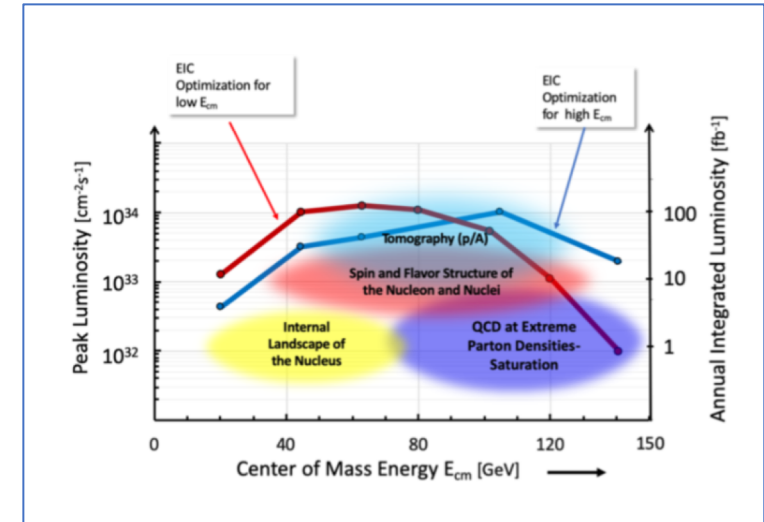
JLab

CFNS Meeting (remote) IR2@EIC Preparatory Meeting 12/15-16, 2020

EIC Electron & Ion Rings & Interaction Regions



Jim Yeck, 4th YR meeting
November 11/19/20, LBL



- EIC is capable of supporting two IRs and detectors. Project funding currently for one IR and 2/3 of one detector.
- Stakeholders agree that 2nd IR with detector of similar timeline as EIC is desirable and routes to making this possible will be explored.

Today's meeting is a step towards this goal and to further explore complementarity from the different performance of the two IRs (as in graph)

Goals of the IR2@EIC Initiative

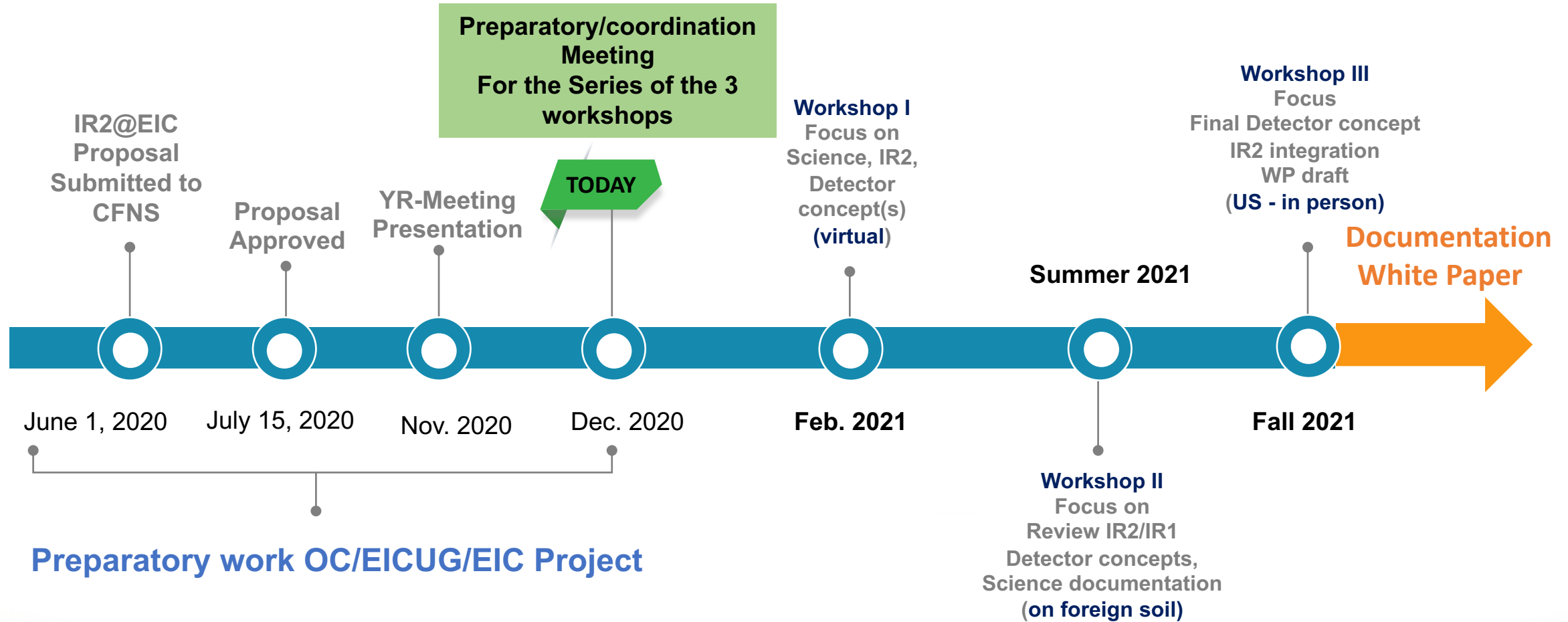
→ Optimize the science output and impact of the EIC:

- Primary interaction region optimized for high luminosity at CM energies > 80 GeV
- Optimize 2nd interaction region to emphasize high luminosity at CM energies < 80 GeV
- Other ways of optimization may be explored as well
- Work with EIC Project and the community to achieve this optimization

→ Scientific Output:

- Evaluate the evolving landscape of the EIC science
- Review complementary approaches for the overall optimization
- Drawing on the results of the Yellow Report initiative and of the EoI results
- Prepare White Paper with a detailed discussion of the conclusions reached

IR2@EIC Series of Workshops - Timeline



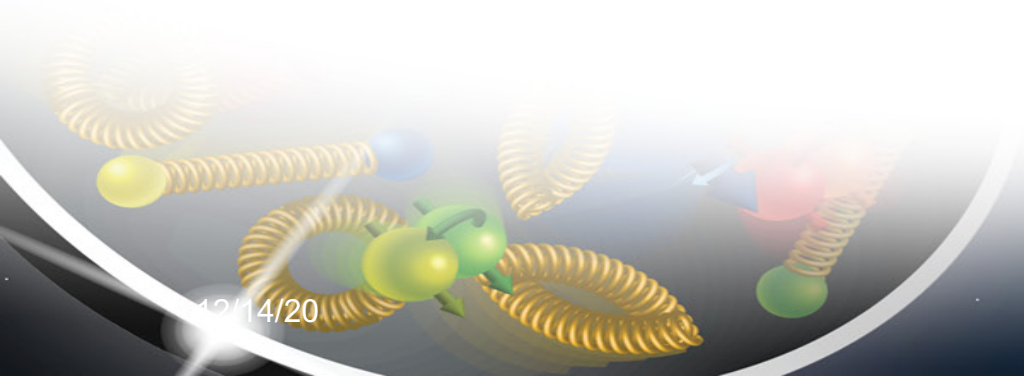
Agenda of today's meeting

- Review of major science aspects
- IR2 design status and impact
- Yellow Report analysis impact on science and detectors
- Does IR2 initiate new software developments?
- IR1 status and Expression of Interest
- Discussions & short community contributions

Goals for 2021

- **The series of workshops is aimed at defining and promoting a scientific program and instrumentation of the EIC with the goal to maximize its science output.**
- **The meeting today will help structure the series of workshops in 2021 with respect to scope and focus.**
- **The community engagement is essential to the success. The series of workshops is also intended to attract new interests and collaborators to the EIC project.**

Additional slides



12/14/20

Workshop series on IR2@EIC Organization

Co-PI's: V. Burkert (JLab), L. Elouadrhiri (JLab)

OC: M. Contalbrigo (Ferrara), A. Deshpande (Stony Brook), H. Gao (Duke), B. Jacak (LBL), R. Milner (MIT), F. Sabatie (Saclay/CEA), T. Satogata (JLab), B. Surrow (Temple)



Volker Burkert



Marco Contalbrigo



Abhay Deshpande



Latifa Elouadrhiri



Haiyan Gao



Barbara Jacak



Richard Milner



Franck Sabatie



Todd Satogata



Bernd Surrow

Agenda:

Chair: Richard Milner

09:50 - 10:00 **Welcome** - Abhay Deshpande

10:00 - 10:10 **Introduction** - Volker Burkert

10:10 - 10:50 **Recent developments in nuclear science at EIC** - George Sterman

10:50 - 11:30 **Recent developments in exclusive nucleon science at EIC** - Cédric Mezrag

11:30 - 11:45 *Break*

Chair: Haiyan Gao

11:45 - 12:25 **Recent developments in SIDIS & Jets science at EIC** - Feng Yuan

12:25 - 12:55 **IR2@EIC design status** - Vasilij Morozov

12:55 - 13:55 *Break*

Chair: Todd Satogata

13:55 - 14:10 **Call for detector proposal** - Maria Chamizo, Robert McKeown

14:10 - 14:35 **Software developments towards a 2nd IR** - Markus Diefenthaler

14:35 - 14:55 **YR results and analysis I (Science)** - Andreas Metz

14:55 - 15:15 **YR results and analysis II (Detectors)** - Kenneth Barish

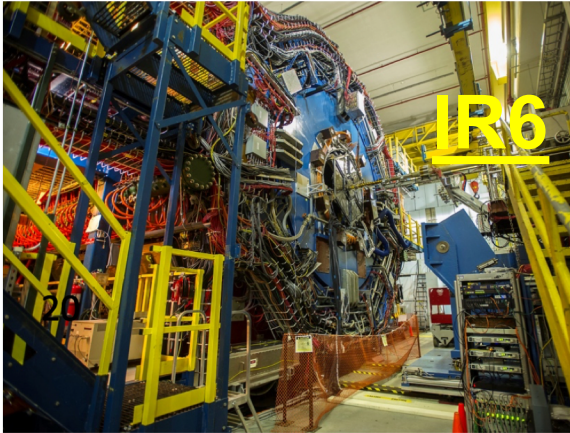
15:15 - 15:25 *Break*

Chair: Barbara Jacak

15:25 - 15:55 **IR1@EIC Detector concept/implementation & EoI** - Elke Aschenauer

15:55 - 17:00 **Short contributions & discussion session**

Two Interaction Regions - Schedule



IR6



IR8

