

Present:

Ivan Belotelov

Uta Bilow

Beatrice Bressan

Ken Cecire

Abha Eli

Michael Kobel

Catia Peduto

Kate Shaw

Sahal Yacoob

Topics discussed:

Masterclasses in Russia

- Start with Dubna; hold masterclass there or possibly in Moscow
- Expand within Russia to universities, schools
- Continue spread by use of connections with institutes in nearby countries, e.g. Armenia
- All 4 LHC experiments
- Action item – work with Ivan on establishing first masterclasses

International Schools and outreach to schools

- Discussed Virtual CMS Masterclass with American International School in Riyadh
  - Great experience, time consuming
  - Tutors Andre David and Salvador Carillo at CERN, Ken Cecire at TU Dresden
  - Administration by Marzena Lapka and Achintya Rao
  - On-site facilitator Cody Schellenberger (*very capable*) and other faculty at AIS-R
  - 4 videocons – intro for teachers, intro for students, mid-course questions, final results
  - Use videos to create “standard” presentations that can be done offline so that videocons can focus on Q&A, practical application, discussion
  - Created a proto-FAQ from student questions, physicist answers – should develop further
  - Web: [http://leptoquark.hep.nd.edu/~kcecire/rmc/cms\\_mc\\_riyadh.html](http://leptoquark.hep.nd.edu/~kcecire/rmc/cms_mc_riyadh.html)
- Discussed other International Schools
  - AIS-R is an International School
  - Teacher at Concordia International School, Shanghai has been doing international masterclasses for several years, this time organized 4 schools with  $\sim 10^2$  students and tour of nearby synchrotron
  - Most International Schools use the International Baccalaureate Curriculum, which includes particle physics
  - International Schools are everywhere – in more countries than IMC
  - Good route to spread masterclasses

- Action items
  - Next IPPOG meeting – meet with International Baccalaureate Organization, HQ in Geneva
  - Continue development of Virtual Masterclasses, website, videos, etc

#### African School of Physics

- Sahal Yacoob has been in communication with Ketevi Assamagan
- Next ASP – Rwanda 2016
- Action item – Sahal continues to work with Ketevi to put masterclass in schedule, get a facilitator to Rwanda

#### New country prospects

- Abha Eli brought masterclasses to Nepal, India, Pakistan
- Kate Shaw in discussion with Venezuela about particle physics resources they are building
- New countries becoming associates at some level with CERN – Mongolia, Sri Lanka, Albania, Bangladesh
- Countries represented in CERN HST – teachers bring masterclass “home”
- Kate Shaw’s 3 tiers of new masterclass prospect countries
  - Tier 1 – CERN institutions and prospective CERN institutions
  - Tier 2 – not CERN-connected but with good physics at universities, labs
  - Tier 3 – no strong physics programs and/or very limited internet, IT (or none)
- Action items
  - Develop and make available Masterclass-in-a-Box (see <https://quarknet.i2u2.org/page/masterclass-box>)
  - Make contacts with physicists in prospective new countries
  - Work with teachers at HST