ICHEP2016 Plenary Session
Future accelerator facilities and open discussion

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Physics Background

• Standard Model completed
• We “know” that physics beyond the SM exists
  – neutrino mass
  – excess of baryon in the universe
  – dark matter and dark energy
• And some other “mysteries”
  – absence of CP violation in the strong interactions
  – $\mu(g-2)$
  – x-ray line from the universe
  – and others…
• But we do not know the energy threshold for new physics
Roadmaps

- Roadmaps have been produced in various countries and regions of the world.
- Being “global” is becoming a key word, in particular for large facilities.
- On the other hand, real break though often comes from unexpected results. It is difficult to make a roadmap for this and may happen at a “small” facility.
- How do we cope with this?
Community Vision Talk

- Asia-Pacific: Mitsuaki Nozaki (AsiaHEP chair)
- Americas: Ian Shipsey (US DPF chair)
- Europe: Manfred Kremmer (ECFA chair)
Laboratory Plan & Visions Talk

• CERN  Sergio Bertolucci (Research Director)
• FNAL  Nigel Lockyer (Director)
• IHEP  Yifang Wang (Director)
• KEK   Atsuto Suzuki (Director General)
Followed by discussion

• How should we balance between the large and long term projects and emerging new ideas?
• How can we cope with needs for local research activities while large faculties require global resources?
• How will the LHC results from the coming 13 TeV affect the current plans for the future facilities?
• Can becoming global generate more resources: difference between the global coordination and global projects?