The Energy Frontier (EF) Working Group

From SLAK

The Energy Frontier (EF) group will explore the TeV energy scale and beyond. Our sharply focussed agenda includes understanding the heaviest particles of the Standard Model (SM), as well as exploring physics beyond the SM to discover new particles and interactions, including unraveling the mystery of dark matter. In this context, the EF group will carry out (and compile) detailed studies of **Electroweak (EW) physics, QCD and strong interactions, and Beyond-Standard-Model (BSM) physics** under different future accelerator scenarios, including lepton-lepton, hadron-hadron, and lepton-hadron colliders.

Name	Institution
Meenakshi Narain	Brown University
Laura Reina	Florida State University
Alessandro Tricoli	Brookhaven National Laboratory

Topical Group	Co-Conveners
EF01: EW Physics: Higgs Boson properties and couplings	Sally Dawson (BNL), Andrey Korytov (U Florida), Caterina Vernieri (SLAC)
EF02: EW Physics: Higgs Boson as a portal to new physics	Patrick Meade (Stony Brook), Isobel Ojalvo (Princeton)
EF03: EW Physics: Heavy flavor and top quark physics	Reinhard Schwienhorst (MSU), Doreen Wackeroth (Buffalo)
EF04: EW Physics: EW Precision Physics and constraining new physics	Alberto Belloni (Maryland), Ayres Freitas (Pittsburgh), Junping Tian (Tokyo)
EF05: QCD and strong interactions:Precision QCD	Michael Begel (BNL), Stefan Hoeche (FNAL), Michael Schmitt (Northwestern)
EF06: QCD and strong interactions:Hadronic structure and forward QCD	Huey-Wen Lin (MSU), Pavel Nadolsky (SMU), Christophe Royon (Kansas)
EF07: QCD and strong interactions: Heavy Ions	Yen-Jie Lee (MIT), Swagato Mukherjee (BNL)
EF08: BSM: Model specific explorations	Jim Hirschauer (FNAL), Elliot Lipeles (UPenn), Nausheen Shah (Wayne State)
EF09: BSM: More general explorations	Tulika Bose (U Wisconsin-Madison), Zhen Liu (Maryland), Simone Griso (LBL)
EF10: BSM: Dark Matter at colliders	Caterina Doglioni (Lund), LianTao Wang (Chicago)

In addition, we foresee strong liaisons with other frontier groups, such as computing, cosmic, theory, accelerator, instrumentation, and rare processes and precision measurements.