Accelerator Frontier: Brief Update

Vladimir SHILTSEV (Fermilab) on behalf of AF conveners
Fermilab 54th Users Meeting
August 5, 2021
Accelerator Frontier – Main Thrusts and Activities

- Physics (AF1) – ultimate beams – ee/pp/μμ; facilities beyond IOTA
- Proton/ν/μ Factories (AF2) – 2.4 MW and beyond at Fermilab
- Higgs Factories (AF3) – high-lumi ILC; FNAL site fillers ee/μμ/γγ
- Energy Frontier (AF4) – Muon Collider Forum (joint with EF), MCC
- PBC and Rare Processes (AF5) – post mu2e opportunities
- Advanced Colliders (AF6) – practical 1-3 TeV plasma colliders, 10?
- Core Technologies (AF7) – magnets (16T, fast), SRF (efficiency and cost), targets (multi-MW, special)
- Implementation Task Force (ITF) – developing metrics for feasibility analysis and comparison of 8 Higgs factories and 20 multi-TeV collider proposals

- 329 Lols in 2020... → “Pause” since Jan’21 – some work in AF1, AF4, AF7, ITF → Restart in August – MC Forum, regular TGC meetings, ~28 TG workshops/meetings → O(50) White Papers
- Join us! https://snowmass21.org/accelerator/
AF Topical Groups - Contacts at Fermilab

- Physics (AF1) – S.Nagaitsev, V.Shiltsev
- Proton/ν/μ Factories (AF2) – R.Zwaska
- Higgs Factories (AF3) – S.Belomestnykh
- Energy Frontier (AF4) – A.Valishev, D.Stratakis
- PBC and Rare Processes (AF5) – E.Prebys*
- Advanced Colliders (AF6) – V.Shiltsev
- Core Technologies (AF7) – F.Pellemoine (targets),
  A.Zlobin (magnets), S.Belomestnykh (RF)
- Implementation Task Force (ITF) – J.Strait, V.Shiltsev

Liaisons: L.Fields (Neutrino F.), R.Bersntein (Rare Proc. F.)
S.Jindariani (MC-Collaboration), P.Bhat (Collider Group)