UHECR 2012, CERN, Feb 13 -16

Monday 13 Feb. (Auditorium)

14:00 – 15:45 chair:	Welcome address (15 min, Bertolucci) History of UHECR research (35+10 min, **Sokolsky**) [early attempts, first big events, development of fluorescence technique, contradictory results] Review of current status of measurements (35+10 min, **Privitera**) [Auger, HiRes, TA, Yakutsk]
15:45 – 16:15	Coffee break
16:15 – 18:00 chair:	Theoretical challenges: acceleration and propagation (30+5 min, **Blasi**) [max. injection energy, injection power, astrophysical source candiates, propagation effects, GZK horizon] Review of model predictions on spectrum/composition (30+5 min, **Berezinsky**) [scenarios for injection spectra/composition at source and transition galactic to extragalactic sources, implications] Theoretical challenge: connecting accelerator experiments and cosmic ray showers (30+5 min, **Pierog**) [review of accelerator results, in particular LHC ad their importance for understanding air showers]

Welcome Reception in the Globe: 18:15 – 21:00

Tuesday 14 Feb. (Auditorium)

Conference Photo in front of Bat. 500 at 9:00 AM

09:10 – 11:10 chair:	Energy spectrum by HiRes & Telescope Array (15+5) Doug Bergmann Energy spectrum by Auger (15+5) Ioana Maris The Yakutsk array experiment: main results (15+5) A.A. Ivanov WG Review of UHE spectrum data (30+10) Yoshiki Tsunesada Nitrogen fluorescence in air for observing EAS (15+5) Bianca Keilhauer
11:10 – 11:30	Coffee break
11:30 – 12:50 chair:	Mass Sensitive Observables of the Pierre Auger Observatory and Their Possible Implications (15+5); M. Unger Hires & TA Composition Measurements (15+5) Yuichiiro Tameda WG Review of UHE composition data (30+10) Jose Bellido Caceres
12:50 – 14:00	Lunch break
14:00 – 16:00 chair:	Theoretical challenges: particle physics connection (30+10 min., **Ellis**) [alternative models for sources, propagation, but also BH production in EAS, limits on LIV from UHECRs] Review of accelerator data of relevance to shower simulation (30+10 min., **Itow**) [minimum bias measurements, CMS, ATLAS, ALICE, TOTEM, LHCf, LHCb, MIPP, NA61, etc] Recent Results from LHCf (15+5) Gaku Mitsuka Estimates of the proton-proton cross section at UHE energy (15+5); Paolo Lipari

16:00 – 16:30	Coffee break
16:30 – 18:30 chair:	Measurement of the p-Air cross section by Auger (15+5) Ralf Ulrich Measurement of the Muon Shower Content at Auger (15+5) Alexey Yushkov New Physics at UHE energies (15+5) Glennys Farrar New technique and results of CR investigations (15+5) Anatoly Petrukhin WG Review of modeling and description of air showers (30+10); NN [comparison of model with accelerator data, discussion of model uncertainties and model predictions for air showers]

Extra Poster Session

Wednesday 15 Feb. (morning: Auditorium; afternoon: Council Chamber)

09:00 – 11:00 chair:	WG Review of anisotropy data (30+10) NN WG Review of UHE multi-messenger data (30+10) NN Review of TeV gamma-ray and neutrino data of relevance to UHECR (30+10 min., **Gaisser**) [diffuse flux, source candidates]
11:00 – 11:30	Coffee break
11:30 – 12:50 chair:	Review of interpretation of multi-messenger data (including magnetic field deflection) (30+10 min., **Sigl**) [limits on UHECR sources/propagation from multimessenger data, gamma-ray data on magnetic halos] UHE Nuclei Propagation and the spectrum of UHECR (15+5) Roberto Aloisio Transition from Galactic to Extragalactic Cosmic Rays and cosmic ray anisotropy (15+5); Dmitri Semikoz
12:50 – 14:00	Lunch break
14:00 – 16:00 chair:	Deflection of ultra-high energy heavy nuclei in magnetic fields (15+5); G. Giacinty Constraints on inductive acceleration of UHECRs in astrophysical sources (15+5); Sergey Troitsky Are UHECR and multiplets also galactic? (15+5) Daniel Fargion Extragalactic and galactic sources: new evidence, new challenges, new opportunities (15+5); Alexander Kusenko On UHECR Composition & Spectrum (15+5) Andrew Taylor A strategy to unveil transient sources of ultra-high-energy cosmic rays (15+5); Hajime Takami

16:00 – 16:30	Coffee break
16:30 – 18:45 chair:	Reconstruction of muon production depth by TTC (15+5) Michaelangelo Ambrosio What the radio signal tells about the cosmic-ray air shower (15+5); Olaf Scholten AERA: Results and Prospects of MHz Observations (15+5); Ad van den Berg First results from the Microwave Air Yield Beam Experiment (MAYBE) (15+5); Maria Monasor Status of the microwave detection of cosmic rays program at the Pierre Auger Observatory (15+5); Pedro Facal Microwave emission from extensive air showers as seen by CROME (10+5); Radomir Smida TARA: Forward-Scattered Radar Detection of UHECR at the Telescope Array (15+5); John Belz

Conference Dinner: 19:45 departure from CERN by bus to Crown Plaza Hotel
23:15 return from Hotel by bus

Thursday 16 Feb. (Auditorium)

09:00 – 11:00 chair:	On the astrophysical value of larger, yet achievable UHECR detectors (15+5); Etienne Parizot Review of space-based approaches (30+10 min., **Ebisuzaki**) [TUS, JEM-EUSO, Super-EUSO, etc] The JEM-EUSO mission: context and status (15+5) Andrea Santangelo Performances of JEM-EUSO (15+5) Mario Bertaina Interdisciplinary Science with Large Aperture Cosmic Ray Detectors (15+5); Lawrence Wiencke
11:00 – 11:30	Coffee break
11:30 – 12:30 chair:	Ultra high energy particle physics and astrophysics: The need for multicomponent EAS measurement and primary particle identification (15+5); Antoine Letessier-Selvon A conceptual design for a large ground array of Fluorescence Detectors (15+5); Paolo Privitera Future plans of the Telescope Array experiment (15+5); Shoichi Ogio
12:30 – 14:00	Lunch break
14:00 – 16:00 chair:	Theory and phenomenology: summary & outlook (40 min. talk, **Olinto**) Experimental summary & future prospects (40 min. talk, **Fukushima**) Open discussion (round table) (40 min. discussion, **Watson**)

Friday morning:
Guided Tour (optional for those who asked for, max. 50 participants)