International School of Cosmic-Ray Astrophysics
<<M.M. Shapiro>>

22nd Course: "From Cosmic Rays to Gravitational Waves: Now and to Come"

Directors: J.P. Wefel, T. Stanev, J. Hörandel
Secretary: Arthur Smith

Thursday, 4 August 2022

Note: below "Break" denotes break for coffee and discussion and posters

Chair:

09:00—10:00	**Ultra high energy in the multi messenger era**	**Castellina**
10:00—11:00	**Direct observations of hadronic cosmic rays with CALET and other instruments**	**Cannady**
11:00—11:30	**Break**	
11:30—12:30	**Cosmic Neutrinos and Multimessenger Astronomy**	**Halzen**

Chair:

15:00—16:00	**Gravitational waves**	**Schmidt**
16:00 – 16:15	**Performance of the Auger Radio Detector**	**Schlüter**
16:15 –16:30	**Combined estimation of the cosmic-ray mass composition and interaction cross sections at ultrahigh energies**	**Tkachenko**
16:30 – 16:45	**Study of Inclined Trigger for the IceTop**	**Paudel**
16:45 – 17:00	**Cosmic rays detection in the atmosphere using meteorological balloon observation and its interpretation using Monte Carlo simulation**	**Roy**
17:00—17:30	**Break**	
17:30 – 18:30	**Scientific ballooning: near-space access without rockets**	**Mitchell**

All the lectures take place in the Dirac Lecture Hall, San Domenico