"Physics at Future Colliders"
-- 24hours
-- Period=May/June

The course covers the physics prospects of the proposed future collides machines currently under discussion, and presented as part of the last European Strategy Update for Particle Physics.
The projects discussed span from electron-positron colliders (linear and circular, at different center of mass energies from 90GeV to 3TeV), future hadron colliders (proton-proton but also considering the heavy-ion opportunities), electron-proton collider, muon collider and very high energy lepton colliders options.
The course is organised in exploring the physics measurement capabilities and sensitivity to new physics searches proposed by each project and their interpretation for the different type of particles colliding and center of mass energies.
At the end of the course the student will be able to critically compare the pros and cons of the different projects from the physics reach standpoint.
A basic knowledge of the standard model is required. The course is accessible for both experimentalists and theorists.