Over the last decade, the level of control over cold atomic gases has improved, from the first observations of Bose-Einstein condensation, to the point that atoms can now be used to simulate the behaviour of electrons in realistic materials. I will describe the key control elements in this field, and present a (personal) overview of the achievements of the cold atoms field, in particular the ones relevant to condensed matter physics or perhaps high energy physics. I will then present the main interests in my laboratory, namely transport phenomena and mesoscopic physics.

Wednesday October 18th 2017 at 12:45 pm

Room BSP 727 (Cubotron), EPFL