

Enrico Allaria (Sincrotrone Trieste) - Electron beam qualities required for FELs and seeded FEL

jeudi 19 octobre 2017 16:00 (40 minutes)

Modern high gain x-ray free electron lasers rely on the FEL instability that requires high brightness electron beam to develop. This has lead to the need of an accurate control of the electron beam dynamic in the linear accelerator in order to suppress other kind of instabilities that may deteriorate the electron beam quality. In the case of seeded FELs, that allow the generation of fully coherent radiation pulses, it is also required that the electron beam properties do not change over the length of the final FEL pulse. After a general overview, recent experimental results on FEL and electron beam control will be presented.