

Plenary Talk

PV I Mon 9:35 PV-Rooms

Fifty years of revolutions in atomic physics and quantum optics — ●SERGE HAROCHE — Collège de France, Laboratoire Kastler Brossel, Paris, France

The last fifty years have witnessed tremendous progresses in atomic physics and in optics, largely triggered by the development of lasers as unique tools to probe and manipulate matter. What we can achieve

now, in high resolution spectroscopy and time measurement precision, in atomic motion control, in single quantum particle manipulation or in ultra-fast atomic or molecular processes observation, could not even have been dreamed about when I started my life as a physicist, half a century ago. In my talk, I will reflect on some of these major advances, analyse how the perspective of an atomic physicist has changed over this period of time, and try to guess what the future holds for this physics.