

Laser cooling

Philippe Verkerk

3 lectures (1h30)

My lecture will present the basis of laser cooling, starting from scratch. Though laser cooling is well-known, some subtleties are hidden. A special attention will be paid to saturation effects that occur with high intensity lasers. Hopefully, we'll go beyond Doppler cooling with the case of Sisyphus cooling.

Outlook :

- Atom-light interaction (reminders)
- Radiation pressure
- Doppler cooling
- Magneto-optical trap
- Sisyphus cooling