One lecture (1:30 hrs) possible speaker: Prof. S. Guibal

7. Single ion fluorescence

a. Excitation spectroscopy and line shape
b. Non-classical statistics, anti-bunching and squeezing
c. Homodyne detection and spectrum of resonance fluorescence

8. Quantum engineering

a. Creation of number state
b. Creation of coherent state
c. Creation of squeezed state
d. Creation of arbitrary state of motion
e. Experimental state reconstruction
f. Decoherences