

Mauro Falconieri Physical Technologies for Safety and Health Division Fusion and Nuclear Safety Department ENEA–C. R. Casaccia, Rome (Italy)

Tuesday 27 October 2020 12:00 (1 hour)

In this talk the basic principles of spontaneous Raman spectroscopy will be first briefly recalled and then the comparison with coherent techniques will be discussed.

Among the latter the focus will be on Coherent Anti-Stokes Raman Scattering (CARS) and Stimulated Raman Scattering, which will be introduced in a simplified manner using a classical plane-wave approach, with reference to the e.m. field-matter interaction.

The implementation of these techniques in experimental setups exploiting a single femtosecond oscillator will be shown, with reference to the Author current work.