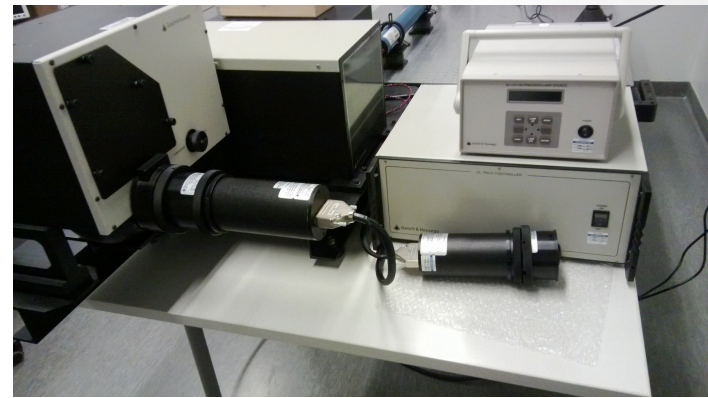# Asteroid surface composition by modeling light scattering

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Objectives

- Theoretical modeling of the spectroscopy, polarimetry, and photometry of the asteroid main classes using UV-Vis-NIR wavelengths
  - classification analysis of the material -> investigate how the asteroids should be classified
    - Existing databases and published measurements
    - PCA, classification trees
  - University of Helsinki Spectrometer + light scattering programs

- One scattering model to explain all the spectroscopic, polarimetric, and photometric observations of the asteroids