Title:
Unravelling the dust formation process in oxygen-rich AGB stars

Abstract:
It is generally accepted that the mass-loss mechanism in AGB stars is based on pulsations and radiation pressure on newly formed dust grains. However, oxygen-rich AGB stars suffer from the so called 'acceleration deficit' dilemma.

We aim to unravel the coupling between micro-scale chemical processes and macro-scale dynamical processes in oxygen-rich AGB stars by combining observations with radiative transfer models and novel forward chemistry models. Here we present the preliminary results obtained for R Dor, a low mass-loss oxygen-rich AGB star.