Investigations of ProtoPlanetary Disks in the era of JWST
Invited oral presentation: JWST session S14

JWST will provide an unprecedented combination of angular resolution and sensitivity in the Near- and Mid-Infrared windows. Among high priority targets for JWST are Protoplanetary disks around young stars and the exoplanets that are forming within these disks. In the first part of this presentation I will give a brief overview of the current programmes targeting disks and scheduled for Cycle 1. In the second part, I will describe our programme: #2562: *Dust Settling and Grain Evolution in Edge-on Protoplanetary Disks*.

In programme 2562 we will obtain broad-band NIRCam and MIRI imaging, between 4 and 20 microns, of four edge-on protoplanetary disks spanning a range of evolutionary states. The images will reveal the wavelength evolution of both the dust lane thickness and the strength of forward scattering which, when interpreted by model fitting, will allow us to derive the grainsize as a function of height in the disk and thus the extent of dust vertical settling that has taken place. This project will empirically quantify for the first time how the dust concentration increases toward the disk midplane, a necessary condition to efficiently form planetesimals.