Contribution ID: **80** Type: **Talk**

Radiative transfer tools for regions of star and planet formation

Wednesday 8 June 2022 11:00 (30 minutes)

Understanding the processes that form stars and planets requires line observations of atoms and molecules at long (infrared and radio) wavelengths. Radiative transfer tools are essential for the step from observed line intensities to physical and chemical conditions such as cloud masses, kinetic temperatures, gas densities, and atomic & molecular abundances. This talk describes existing tools for the physical interpretation of observed line spectra, and outlines which steps are needed to prepare ourselves for the large data streams of upcoming telescope facilities. Special attention is given to the measurement, computation and dissemination of atomic and molecular input data, which are key to reliable estimations of gas properties

Presenter: VAN DER TAK, Floris (SRON / U Groningen)

Session Classification: Interstellar Medium

Track Classification: Interstellar Medium