

TAC Meeting Minutes

Participants:

- Siddhant Deshmukh (PhD student)
- Prof. Dr. Norbert Christlieb (supervisor)
- Apl. Prof. Dr. Stefan Jordan (advisor)
- Dr. Hans-G. Ludwig (advisor)

Date/time: 17 February 2021, 15:00-16:00

Place: Online

Start of thesis: 15 August 2019

Tentative title: *Non-equilibrium processes in cool stellar atmospheres*

During the second TAC meeting, two aspects were discussed:

1. Thesis work
2. Teaching and course obligations

Concerning Thesis Work

As discussed in the previous TAC meeting (23 August 2019), start-up work was to take over a project investigating the solar silicon abundance with a publication within the year. Due to complications in the work, the project is still ongoing and submission is expected mid-April 2021. As this project is not directly related to the primary objective of the thesis (concerning chemical evolution and equilibrium in stellar atmospheres), focus has shifted towards the thesis in recent months. Preliminary models investigating chemical evolution in a solar and metal-poor atmosphere have been computed, and the scope for publication should be made clear mid-April 2021 as well. Immediate goals are to compare a full chemical evolution to a “post-processing” evolution (where the chemistry is evolved from pre-computed model snapshots), implement the chemical evolution code KROME into CO⁵BOLD, and investigate the CH evolution in metal-poor atmospheres.

Concerning Teaching and Course Obligations

The teaching obligations will be fulfilled by 12 March 2021. The courses are *Physik A*, *Fundamentals of Simulation Methods* and *Python: programming for scientists*.

The course on *Galaxies* will be followed in the coming winter term.