

Uppsala Universitet



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**Partner contact person:** [N. Piskunov](#)

**Profile:** The Physics and Astronomy Department of Uppsala University is a world-leading centres in stellar astrophysics. The Department runs two programs: theoretical and observational astrophysics covering various scales and topics from planetary system formation to hierarchical growth of galaxies. The main areas of expertise are atomic and molecular processes in stars and circumstellar medium, advanced models of stellar atmospheres, planet

formation and evolution, chemical evolution of galaxies, origins of magnetic fields, advanced numerical methods for hydrodynamics and radiative transfer, spectroscopic observations and instrument development. The Department hosts two of the major astronomical databases: VALD (atomic and molecular data) and MARCS (stellar atmosphere models). The Department is active user and partner with ESO (VLT and the future E-ELT projects) and ESA (Gaia, Rosetta etc.).

**Role of UU in the project:** UU will be in charge of coordinating WP4 and of handling the connection to small research groups. As for the other partners, UU will participate to all activities and deliverables related to connection to schools/Higher Education and citizen-scientists. UU is a key node of VAMDC consortium as it maintains the Node Software related to publication of A+M data within VAMDC, and will be part of the Operational Support of SUP@VAMDC. UU will participate to the discussions on political issues in WP2. UU will organise meetings as indicated on GANTT diagrams (PERT charts) and in section 2.3.

### **Key persons:**

**N. Piskunov**, Professor at UU

Expertise: Specialist in radiative transfer, opacities, equation of state and spectroscopic analysis of stars.

**U. Heiter**, Scientist at UU

Expertise: Expert in solar-type and cooler stars specializing in stellar atmospheres, molecular opacities, spectral synthesis and chemical analysis of cool stars. Ulrike is part of the VALD and VAMDC team working on molecular data. She is also an active participant of the Gaia data

processing team analyzing ground-based supplementary data for training the Gaia RVS pipeline.

**Andreas Korn**, Professor assistant

Expertise: Specialist in chemical stratification, stellar atmospheres and non-equilibrium effects in stellar atmospheres. Andreas of one the leaders of the Gaia data analysis team responsible for star characterization.

**S. Regandell**, Postdoc

Expertise : Samuel is a specialist in atomic data application of opacity table calculations for the ISM as well as in detailed spectral synthesis in low-density anisotropic environments such as circumstellar medium.

**T. Marquart**, Scientist at UU

Expertise: Expert in content and access protocols of databases with atomic and molecular data. He is one of the main developers of the Node Software within the VAMDC project.

**E. Stempels**, Senior Postdoc

Expertise: Specialist in radiative transfer, chemical analysis of stars including spectroscopic binaries and in the ISM. Eric also has a substantial expertise in managing EU projects. As VALD administrator Eric is also one of the main contributors to the VALD software and VALD data quality control.

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