

Commission G5 Stellar and Planetary Atmospheres

President Chris Sneden
Vice-President Simon Jeffery

Organizing Committee Members

Carlos Allende Prieto
Simone Daflon
Oleg Kochukhov
Daniela Korcakova
Gautier Mathys
Mudumba Parthasarathy
Klaus Werner

Commission G5 Working Groups

Div. G / Commission 5 WG Stellar Spectral Libraries

The scope of the work of the Commission includes theory and modeling of stellar and planetary atmospheres, as well as observational spectroscopic studies of these objects. The Commission tries to meld the work of theorists, modelers, and observers, particularly spectroscopists. A main objective is to address the issues of how to make theory more useful for observers, and how to make observations more powerful by judiciously using state-of-the-art theoretical descriptions.

Activities in 2020-21 were constricted by the Covid-19 pandemic, with few in-person meeting opportunities. In their place, the commission has hosted online seminars approximately once every two months. These seminars are recorded and kept available online to enhance their impact. The work of deciding seminar topics and engaging speakers has been led by Katia Cunha, Daniela Korcakova, and Carlos Allende Prieto. These talks are ongoing. Here are the ones presented in 2021-22:

"1st IAU-G5 seminar: The revolution of task-based computing, applied to stellar and planetary atmospheres", by Prof. Åke Nordlund, May 18, 2021

"G5T: ExoMolHD: Precision spectroscopic data for studies of exoplanets and other hot atmospheres", by Dr. Sergey Yurchenko, July 20, 2021

"G5T: Exoplanetary Atmospheres", by Dr. Nikku Madhusudhan, September 21, 2021

"IAU G5: "Extreme Precision Stellar Spectroscopy", by Dr. Dainis Dravins, November 23, 2021

"IAU G5 - The GALAH survey: science goals and highlights to date", by Dr. Sarah Martell, January 25, 2022

"IAU G5 talk: Inelastic hydrogen collisions in stellar atmospheres
Dr. Paul S. Barklem, March 22, 2022

The Commission helped to organize the Division G "Division Days" at the upcoming IAU General Assembly in August.