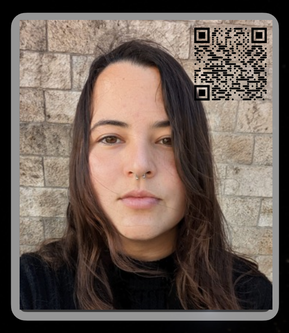
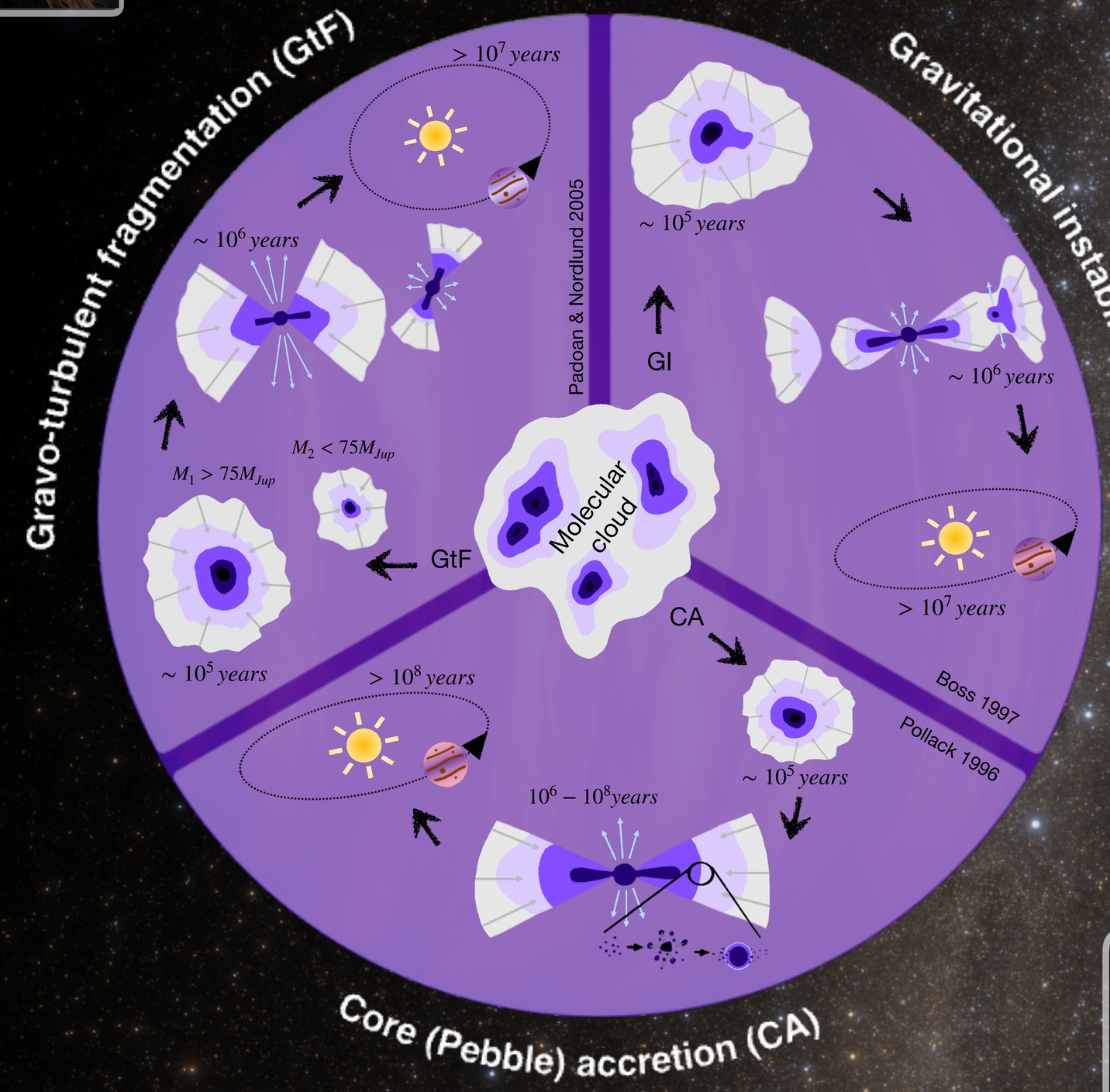


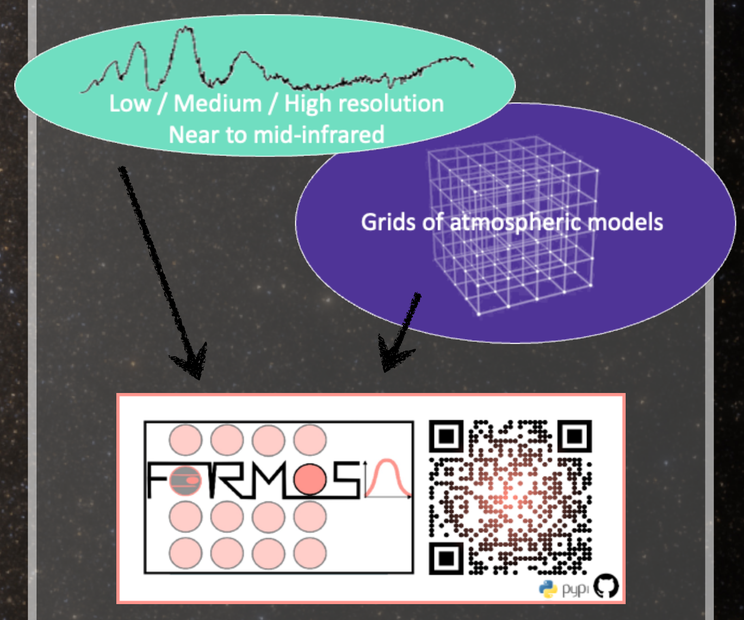
A super-Jupiter or a brown dwarf?

Probing formation histories through a homogeneous atmospheric analysis.

Paulina Palma-Bifani, Gaël Chauvin, Mickaël Bonnefoy, Patricio Rojo, Pierre Baudoz, and Simon Petrus



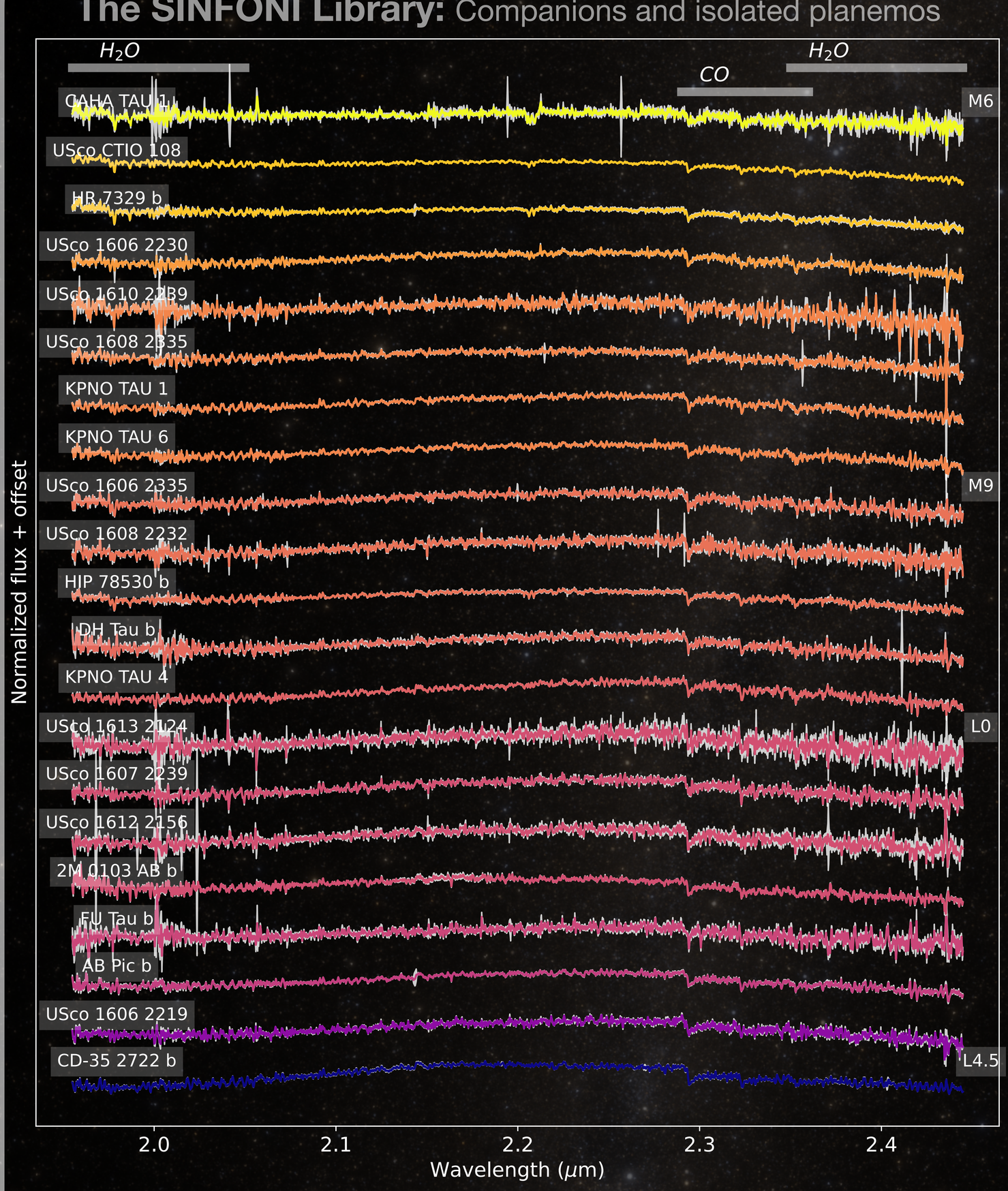
How to "forward model" an atmosphere efficiently?



Scan to learn more about ForMoSA !

Developers: S. Petrus, P. Palma-Bifani, M. Ravet, A. Denis, M. Bonnefoy, and G. Chauvin

The SINFONI Library: Companions and isolated planemos



Spectroscopic VLT/SINFONI observations at the K band from various programs: Kopytova 092.C-0803(A) and 093.C-0829(A&B); Radigan 093.C-0502(A) and 092.C-0535(A); Patience 092.C-0809(A).

Preliminary results

The following posteriors were retrieved for the whole sample using ForMoSA with the ATMO grid (P. Tremblin et al. 2015).

We note that the explored parameter ranges by ATMO are limited. For instance the [M/H] and the adiabatic index posteriors are trapped for some targets at the upper boundary.

It's possible to notice that the C/O ratio is significantly under-constraint compared to the other parameters, which might indicate that we are resolution or signal-to-noise limited.

We are currently exploring the parameter distributions and their correlations further. Our results are in preparation; stay tuned for more :)

Background: NASA