
Accreting planetary-mass-objects at medium to high-resolution

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Abstract

I present recent spectroscopic observations of low-mass accretors including PDS70b, DeLorme 1 (AB)b, and TWA27B and others with VLT/MUSE, SOAR/TripleSpec, or JWST/NIRSpec. These exquisite data reveal structures in the shape of hydrogen emission lines seen at these embedded or (semi-)isolated accretors. This yields tentativing clues about the physical processes associated with the accretion, with support for both shock-emission and magnetospheric-accretion models. I also present 2.5D radiation-hydrodynamical simulations of the accretion onto gas giants and what this implies for their detectability through spectroscopy and direct imaging.

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