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Scoperta di un candidato protoplanetario nel Disco di HD 135344B

Thursday 5 June 2025 15:10 (12 minutes)

Observing protoplanetary disks and searching for embedded planets is essential to understanding the early stages of planet formation and the dynamical processes shaping young systems. The transition disk of HD 135344B, with its well-defined spiral arms and inner cavity, represents an ideal laboratory to study such interactions. I will present the discovery of a potential protoplanet within this disk, observed with ERIS/NIX at the VLT. Using high-contrast imaging in the Lp-band, we identified a point-like source emerging at the base of one of the spiral arms, likely triggered by interactions between the planet and the disk. This detection provides a unique opportunity to investigate planet formation processes at early stages and the impact of young planets within their natal disks. These findings highlight the critical role of thermal L-band observations in the search for young planets embedded in protoplanetary disks.

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Session Classification: I sistemi planetari analoghi al sistema solare: un approccio olistico per il prossimo ventennio (chair: J. Brucato)