

Looking for binary planets, satellites and disks around exoplanets

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In the past decades the exoplanets hunting has improved so much that thousands of planets have been confirmed and partially characterized. Both indirect and direct detecting techniques have filled this huge sample, from the terrestrial to the gas giant and brown dwarf regime. One further step would be to detect exomoons and disks/rings around exoplanets, that we expect to be there taking as a model our Solar System. We will show how this goal is, however, a really challenging one and which estimates we can obtain from the present instrument and data. In particular, we developed a technique based on the PSF subtraction to deeply investigate the neighborhoods of exoplanets detected with the direct imaging technique in order to look for further companions and circumplanetary disks.

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