

# Properties of Hypothetic Planetary Systems Around The Brown Dwarf Gliese 229B

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The occurrence of planetary systems around brown dwarfs has not been studied so far in detail. However there are not reasons to assume that brown dwarfs have not planetary companions. Moreover their smaller mass with respect normal stars makes more prominent the effects due the presence of the planets, allowing in principle the identifications of planets with smaller mass (*i.e.* Earth-like planets). In this paper we present a feasibility study of detection of planetary companions around the brown dwarf GL 229B ( $M=0.03 - 0.55 M_{\odot}$ ) using near-infrared high resolution spectroscopy to measure radial velocity variations.