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Title: Revisiting the Mass-Radius relation of low mass stars using SOPHIE and the Kepler and CoRoT planet search surveys
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Abstract: G. Montagnier, J.-M. Almenara, R. Díaz, G. Bruno, F. Bouchy, M. Deleuil, G. Hébrard, C. Moutou, A. Santerne, A. Triaud et al

Stars at the bottom of the main sequence have complex physics, from both interior structure and atmospheric point of views. In this context, accurate measurements of mass and radius are valuable observational constraints since both reflect the physical characteristics of the interior of these objects. We present the results of our program that follows low mass stellar companions from the Kepler and CoRoT transit planet search surveys with the SOPHIE spectrograph. By taking advantage of the transit and radial velocity methods we are able to significantly improve the statistics of the Mass-Radius relation for such objects.