

Searching and studying giant planets and their systems with SOPHIE at OHP

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Numerous questions remain open concerning giant exoplanets, concerning their statistics, formation and evolution processes, architectures, or links with their host stars. Several programs are ongoing with SOPHIE at OHP with the goal to detect and characterize such giant planets and their systems in order to progress on those questions. This includes (i) a radial-velocity volume-limited survey of Solar-type stars targeting giant planets, (ii) the search of extra low-mass planets in systems known to host cool giant planets, and (iii) the radial-velocity follow-up of photometric surveys for transiting planets. Those programs will be presented, as well as their latest results.