

## Future prospects for radial-velocity searches

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### Abstract

Instrumental advances in the last few years have seen the "high frontier" of radial-velocity searches moving towards detection of planets in the few-Earth-mass regime around solar-type stars. A new generation of stable high-resolution infrared spectrometers will soon see a move towards detection of Earth-mass planets in the habitable zones of low-mass stars. The infrared and polarimetric capabilities of the next generation of instruments will also help to combat astrophysical noise from the host stars. In this talk I will survey prospects for realising these ambitions in the face of the challenges presented by instrumental limitations and astrophysical noise originating in the host stars themselves. I will discuss synergies with forthcoming ground-based and space-based transit missions such as NGTS, TESS and CHEOPS, and examine considerations to be taken into account when selecting targets and formulating observation strategies.