

Search for extrasolar planets: present status and future prospects

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The primary purpose of a number of 10m class telescopes around the world is extend our cosmic horizon, to look for the most distant objects. Those objects located at the edge of the universe are necessarily faint although they are intrinsically very bright indeed. The improvement of the detection threshold implies that such telescopes are now able to find equally faint objects not because they are located at cosmological distances but because they are intrinsically dark, extrasolar planets.

Indeed, since the first discoveries of planets orbiting main-sequence stars by Mayor and Quelos (1995) and Marcy and Butler (1996), more than 110 extrasolar planets have been discovered so far.

In this talk, I will review the current observational status of the extrasolar planet searches with particular emphasis on the on-going projects in Japan using Subaru telescope. Then I will discuss the future direction in this field.