

## Detection Of Terrestrial Planets By Transits: The COROT Mission

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France, Austria and Spain are building the COROT mission. It is the second “petite mission” of the Centre National d’Etude Spatiale with a launch scheduled in 2003. A 33 cm telescope will be sent on an inertial Earth orbit. During its lifetime, it will provide photometric observations of 5 stellar fields, each of them been observed during 5 months continuously.

Goals are *(i)* stellar seismology and *(ii)* search for planetary transits in from of stars. For the latter, about 50,000 stars are monitored with a relative accuracy of a fraction to a few  $10^{-4}$ , according to the stellar magnitude. A dispersive device allows photometry in several colors. The capability of the instrument to make detection and characterization, especially for telluric planets, as a function of the planetary size and distance to their star is described. The expected global information on the frequency of planets around stars is derived.