

Detect exoplanets from your backgarden

Ian Sharp captures an exoplanet called KELT-23Ab

Amateur astronomers can measure the dimming effect produced by a transit to detect the existence of an unseen exoplanet. The amount of dimming is important because it is tiny and often quoted in millimagnitudes. However, there are many exoplanets you can hunt down with dips in the light curve of 20 or 30 millimagnitudes, which is within the capabilities of an amateur. For example, in a four-hour run of 45-second exposures, where I captured a system called KELT-23A with an exoplanet called KELT-23Ab, the dip depth was 20 millimagnitudes (see graph below).



KELT – 23Ab

2022-02-07 00:16 (UT)
Dur: 4.2h / Exp: 45.0s
Filter: R

Ian D. Sharp
Ham Observatory / Celestron C9.25 EdgeHD / SX TRIUS 694 PRO

