

Development of the MuSCAT series and their latest scientific results

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MuSCAT series are 3- or 4-color simultaneous cameras customized for four 1-2m class telescopes in the world. So far we have developed and installed the four MuSCATs on the 188cm telescope in the Okayama observatory (Japan), the 1.52m telescope in the Teide observatory (Spain), the 2m telescope in the Haleakala observatory (USA), and the 2m telescope in the Siding Spring observatory (Australia). The primary purpose of the MuSCAT series is to observe planetary transits in multi-color, providing capabilities for validating new transiting planets, improving future transit ephemerides, monitoring transit timing variations, and characterizing atmospheres of transiting planets. We report the specifications, capabilities, and performances of the MuSCAT series including latest scientific results produced by the MuSCAT series.

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