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Mode Identification in Blue-Straggler Pulsators with LSST Multicolour Photometry

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As LSST will probe faint and distant stellar populations, it offers an unprecedented opportunity to study pulsating blue stragglers, particularly SX Phoenicis stars in stellar clusters. Mode identification is a crucial step in asteroseismic modelling, which can provide constraints on the internal structure and evolutionary history these stars. Photometric method of mode identification exploits the fact that the wavelength dependence of pulsation amplitudes and phases varies with the mode geometry. We present various diagnostic diagrams for the models of blue stragglers
in the LSST passbands and assess their potential for mode identification.

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