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Title: Modeling the white light fringe

This paper addresses the issue of modeling the white light fringe. We developed analytical expressions necessary for extracting the phase, visibility and amplitude information as needed for the astrometric interferometry. The model accounts for a number of instrumental and physical effects and is able to compensate for a number of operational regimes. The obtained analytical result depends explicitly on the functional form of the OPD modulation. We developed several different special cases of OPD modulation including stepping and ramping OPD modulation. We addressed the issue of error propagation through the system both analytically and numerically. Results of our numerical simulations are presented and discussed.