"SIM Community Science"

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Abstract

The Space Interferometry Mission is designed to reach an unprecedented accuracy of 4 microarcseconds on targets as faint at 20th magnitude. This capability is truly what makes SIM unique. But observing faint targets to high accuracy requires repeated long integrations, effectively limiting the number of such targets that can be observed.

In this short talk to the SIM Science Team, I outline an observing mode for SIM which allows the observation of a large number of targets, thereby allowing science programs which require a statistical approach. This mode is called "Community Science", because it is expected to be used by a large number of scientists to propose for SIM, and to obtain SIM observations. In this mode, a standard series of short observations are made, carefully scheduled to minimize the observing 'overhead'. Community Science targets will typically be brighter targets (< ~ 16 mag) and with less than the ultimate SIM precision. Around 20,000 targets can be observed this way, depending on the distribution of target brightness.