

# Experiences Using a Multicore Processor for Rover Autonomy

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*Abstract*—This talk will discuss efforts to develop and demonstrate rover science operations using onboard multicore computing. We are adapting three rover autonomy technologies identified as important or enabling for future rover missions to fully execute on a multicore processor. In particular we discuss the current results and challenges of

adapting technology for onboard rock finding, rock texture classification, and automated planning to use Tiler's TILE64? Multicore Processor in anticipation of migrating to the radiation hardened Maestro processor based on the same architecture.