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Rubidium Isotope Shift Measurement using Noisy Lasers¹ ALEX GIOVANNONE, The Ohio State University, THEODORE BUCCI, JONATHAN FEIGERT, MICHAEL CRESCIMANNO², Youngstown State University, BRANDON CHAMBERLAIN, The Ohio State University — We describe theoretically why the typical advanced undergraduate rubidium SAS laboratory works well with free-running laser diodes, demonstrate it experimentally using these lasers tuned to either principal near-infrared transitions, and show an extension of the laboratory using the modulation transfer spectroscopy method.

Alex Giovannone The Ohio State University

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²Project Lead