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Synchronous Spin Exchange Optically Pumped NMR Gyro¹ SU-SAN SORENSEN, DANIEL THRASHER, JOSH WEBER, ANNA KORVER, THAD WALKER, University of Wisconsin-Madison — We discuss the leading systematic errors of a synchronous spin exchange optically pumped NMR gyro. Xe131 and Xe129 are simultaneously polarized transverse to a pulsed bias magnetic field through spin exchange collisions with polarized Rb atoms. We further discuss progress towards using our device to search for long range interactions from axionlike particles.

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