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“A Zero-Area Sagnac Superluminal Ring Laser for High-Sensitivity Accelerometry”

A wide variety of techniques have been developed over the years to enhance sensitivity of interferometer used for metrological applications. Currently underway in our laboratory is an effort to develop high-sensitivity metrological devices by utilizing fast light. When combined with gain inside a Sagnac interferometer, fast light enhancement can reach values as high as $\sim 10^5$ for accelerometry applications.