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Original Amplifier For Mode Division Multiplexing Based On Dual Core Erbium-Doped Fibre And Asymmetric Long-Period-Grating Converters — VIPUL RASTOGI<sup>1</sup>, ANKITA GAUR<sup>1</sup>, PIERRE ASCHIERI<sup>2</sup>, and •BERNARD DUSSARDIER<sup>2</sup> — <sup>1</sup>Department of Physics, Indian Institute of Technology, Roorkee, India — <sup>2</sup>Université Nice Sophia Antipolis, CNRS, LPMC, UMR 7336, Nice, France

An original concept of integrated few-mode erbium doped fibre amplifier for mode division multiplexing (MDM) reaches nearly zero differential modal gain between two mode groups (8 MDM channels) with more than  $20~\mathrm{dB}$  of gain.

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