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Fabri-Perot Resonances in Ultrathin Layers of Tri- and Tetra-Hyperbolic Bianistropic Materials ROBERT WILLIAMSON, MAXIM DURACH, Georgia Southern University — Multi-hyperbolic metamaterials support high-k plane waves with hybridization of electric and magnetic fields [Durach, Williamson, Laballe, Mulkey, Appl. Sci., 10(3), 763 (2020); Durach, Optics Communications, 476, 126349 (2020)]. In this work we introduce Fabri-Perot resonances (FPRs) based on these high-k waves in deeply subwavelength layers. Due to the hybridization the FPRs feature enhanced magnitudes of both magnetic and electric fields.

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