relations at the sub-percent level. We also expect that this technique will enable ultra-precise measurements of dispersion and optical properties of high-reflectivity mirror coatings. Such measurements should provide new capabilities for characterizing material non-linearities which are relevant to optical cavities used for pulse energy enhancement, high-harmonic generation and broadband comb-based spectroscopy [52]. Finally, we describe how to extend our method and to improve its sensitivity to best exploit the potential of modern optical systems.

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