

Abstract Submitted
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Spatio-Temporal Dynamics of Cross Polarized Wave Generation¹

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— We use time-domain Spatially and Spectrally Resolved Interferometry (SSRI) to investigate cross-polarized wave (XPW) generation in barium fluoride. We find that the XPW pulse is $\sqrt{3}$ smaller than the input in the spatiotemporal domain regardless of the input chirp. Additionally, we calculate a temporally dependent focal length resulting from the nonlinear interaction, and discuss its implications.

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