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[135] Speeding up transient absorption measurements by two orders of magnitude

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Transient absorption is a widely used technique in ultrafast spectroscopy. In this contribution we show how the correlation of the noise on the employed light source can be used to reduce the measurement time by two orders of magnitude without need to increase the repetition rate of the laser system or the light exposure of the sample. Besides being an important progress in itself, the gain in photometric resolution can be used to resolve small changes in transient anisotropy which are otherwise difficult to access by time-resolved broadband spectroscopy in the visible domain.

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