

DAMOP19-2018-000003

Abstract for an Invited Paper
for the DAMOP19 Meeting of
the American Physical Society

Dynamics from data with extreme timing uncertainty¹

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Accurate dynamical information is available far beyond the timing uncertainty of individual snapshots. It is thus possible to recover information on the single-femtosecond timescale from experimental data recorded with 300fs timing uncertainty. In fact, it is interesting to ask whether any timing information is needed to understand the changes associated with dynamical events. Of course, nothing is for free.

¹Supported by US Department of Energy, Office of Science, Basic Energy Sciences under award DE-SC0002164 (algorithm design and development, and data analysis), by the US National Science Foundation under awards STC 1231306 (numerical trial models) and 1551489 (underlying analytical models)