

## Microsymposium

**MS96.O03**

### *A new approach to time-resolved X-ray crystallography*

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Time-resolved crystallography is able to provide four-dimensional structural information about short-lived intermediate states, with near-atomic resolution. This information can be used to elucidate molecular mechanisms relevant to areas such as drug-design, chemical and biological sensors, and energy and information storage. The current state of the art time-resolved experiments can reach picosecond time-resolutions using Laue crystallography but such experiments can only be carried out at a few beamlines worldwide. We have developed a new transform time-resolved method that can be performed using a monochromatic beamline at a synchrotron and still achieve high time-resolution, vastly increasing the accessibility of such experiments. Here we present initial results demonstrating the method.

**Keywords:** time-resolved