Contribution ID: **12** Type: **not specified**

Searching for the known unknowns: Lightening up the dusty universe

Wednesday 8 May 2024 10:15 (30 minutes)

I will talk about how I use astrophysical transients to address fundamental questions about the Universe we live in. Astrophysical transients —stars exploding as supernovae —are the spotlights of the Universe, which are, however, dimmed by 'cosmic dust', i.e., small solid particles of unknown origin. Recent measurements of the expansion rate of the Universe, using supernovae as distance indicators, are in disagreement with early Universe measurements. Some questions which shall be addressed are: Are supernovae the long sought production factories of large cosmic dust grains? And, is cosmic dust a driver of the expansion rate discrepancy? I will talk about how new methods and upcoming transient surveys may help find answers to these questions.

Presenter: GALL, Christa