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## Dust in the early universe

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Early dust enrichment is believed to occur on very short timescales following the first supernova explosions. The efficiency of this process and the nature of the first dust have a large impact on early star formation. Molecule formation on the surface of dust grains promotes gas cooling, increasing the star formation efficiency. In the densest part of collapsing pre-stellar clouds dust-driven fragmentation is believed to enable the formation of low-mass and long lived stars. The properties of these fossil remnants may provide us with important clues on the nature of the first supernovae and their dust production efficiencies. Finally, deep ALMA observations are probing the dust content of normal star forming galaxies at  $z > 6$ , pointing to a rapid dust enrichment of the interstellar medium for some of these sources. In this talk, I will review the status of our understanding of early dust enrichment and the many open questions that need to be addressed in the future.

### Consider for a poster?

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