

Sources of Dust in the Early Universe

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The battle about the most efficient sources of dust production in the Universe is still ongoing and raises interesting questions to be answered. While the large amounts of dust detected in galaxies and quasars at high redshift bear witness of a rapid production of dust, massive stars ending their lives as either asymptotic giant branch stars or supernovae, contemplated as prime sources of dust, have not yet emerged victorious to account for the large dust masses observed. I shall address the challenge of determining dust masses observationally and discuss the contribution of the prime dust sources and alternatives to the dust budget in the high redshift universe. I will highlight the importance of the robustness of produced dust grains in stellar sources and how this could impact answering the question about the origin of dust in the early Universe.