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Simultaneous Constraints on the Star Formation History and Nucleosynthesis of Sculptor dSph

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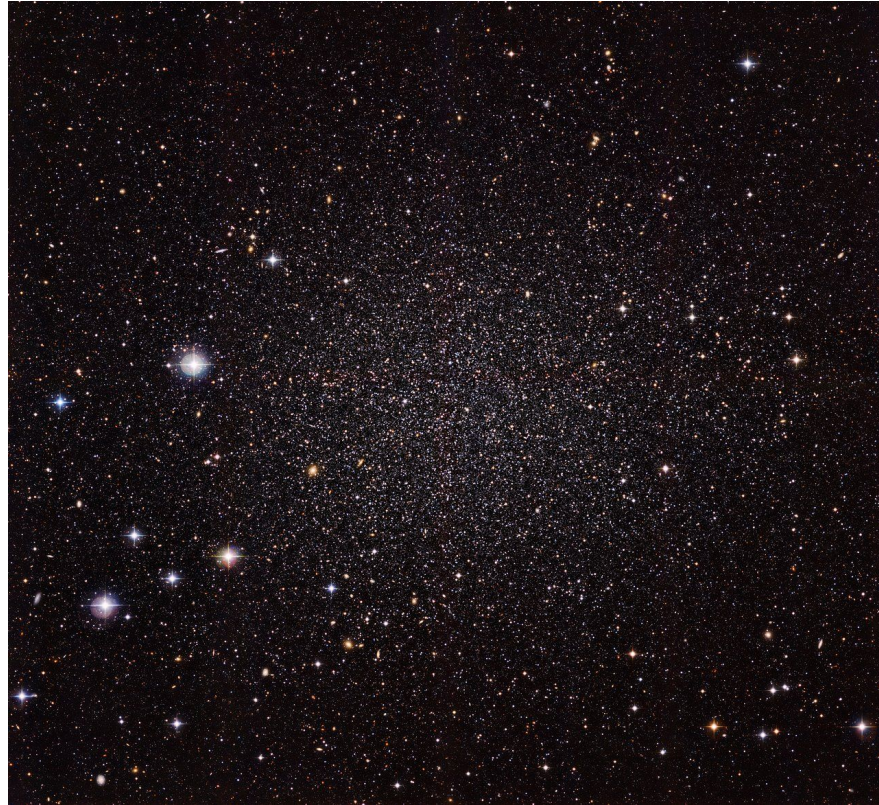
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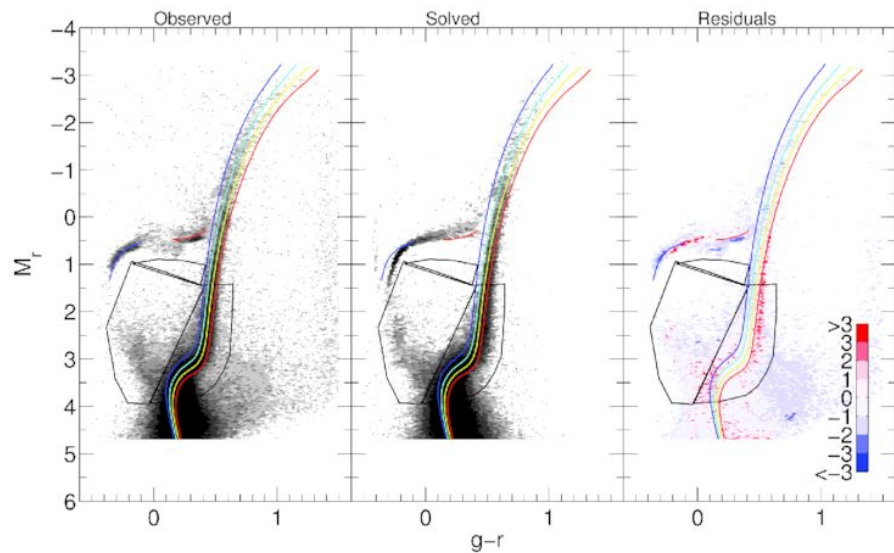
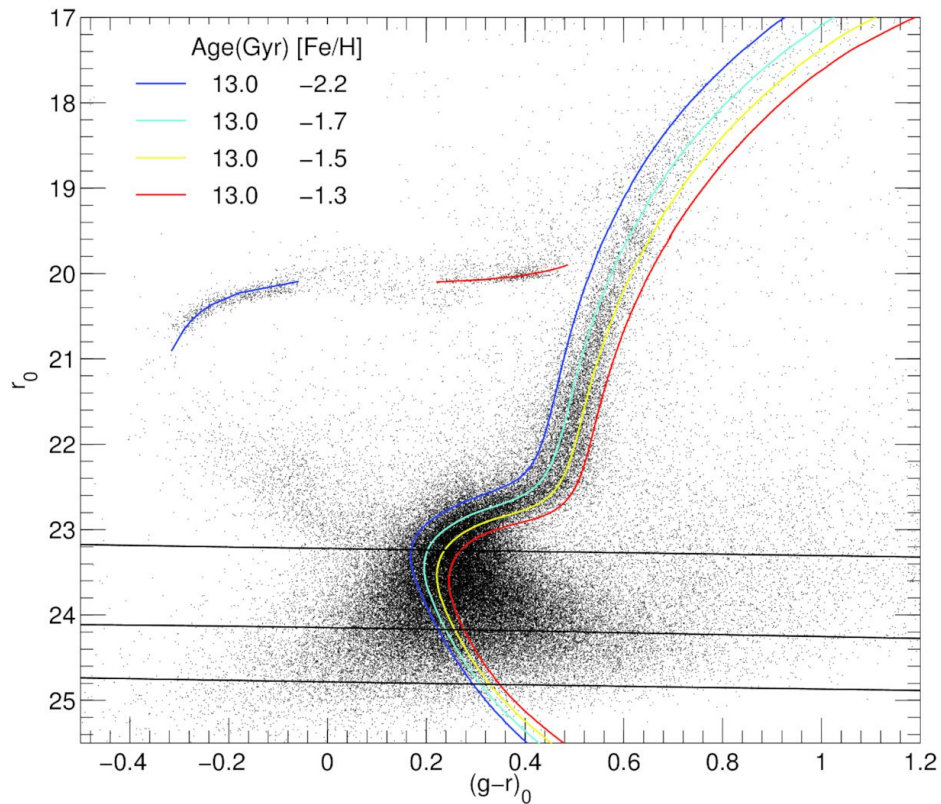
Submitted to ApJ

Sculptor dSph



The star formation history of the Sculptor dwarf spheroidal galaxy

Bettinelli et al. 2019, MNRAS, 487, 5862



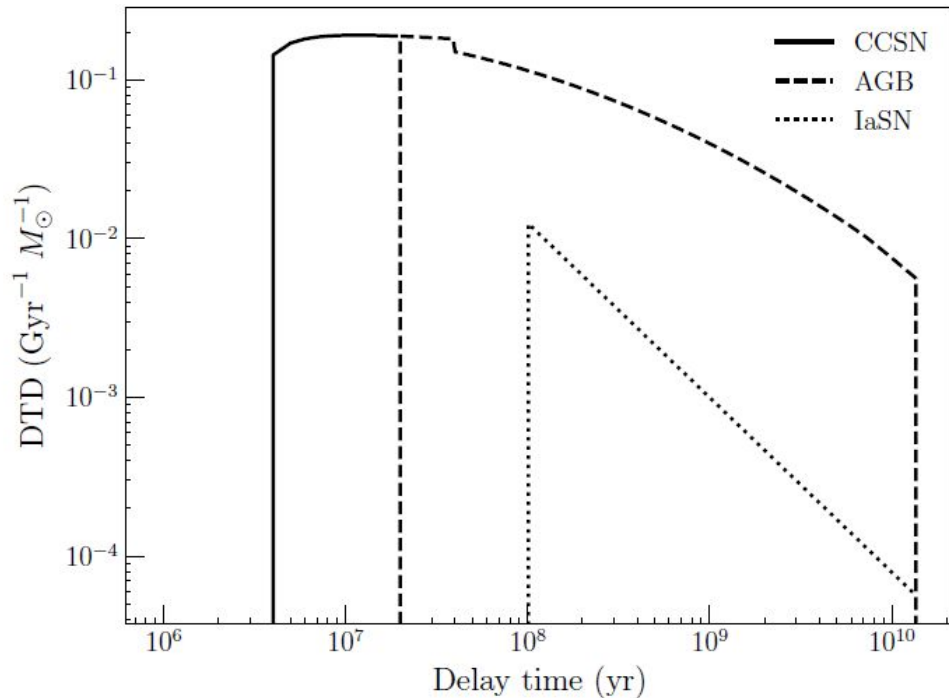
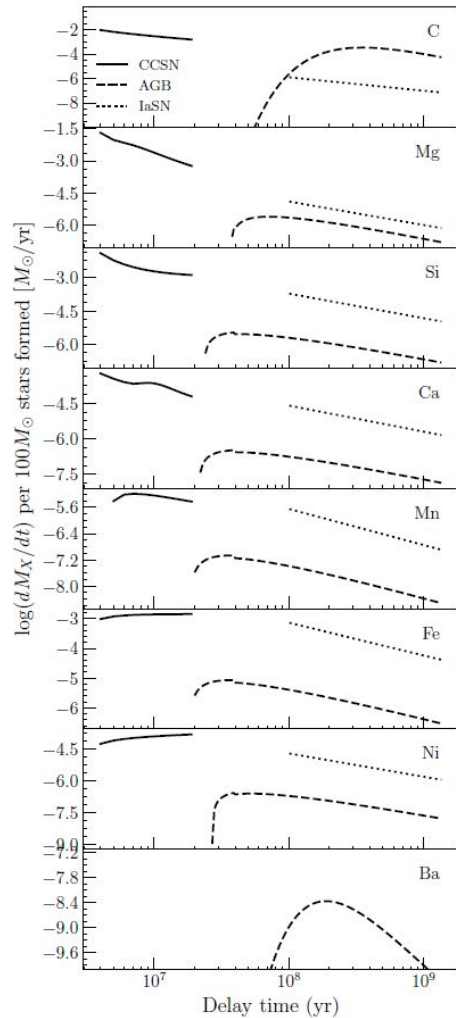
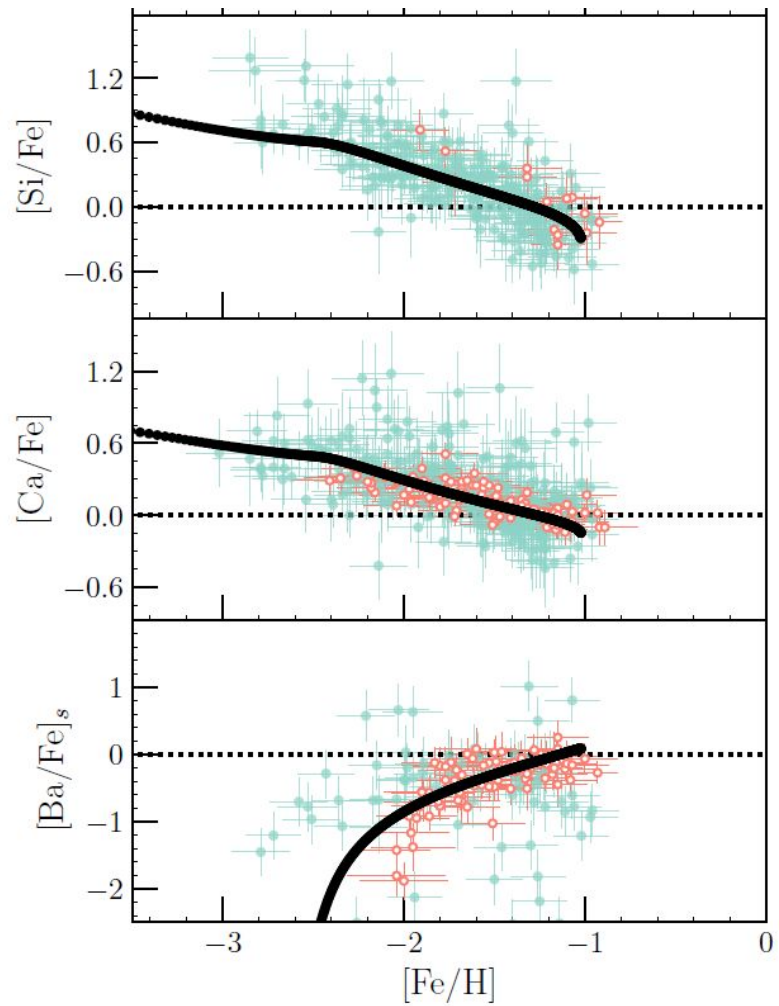
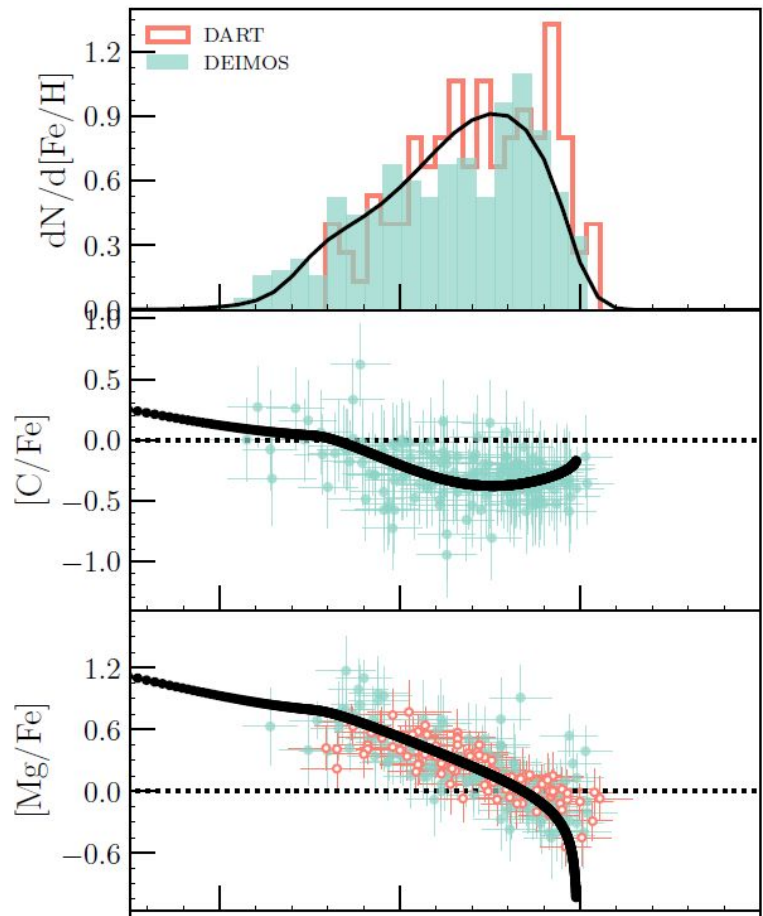
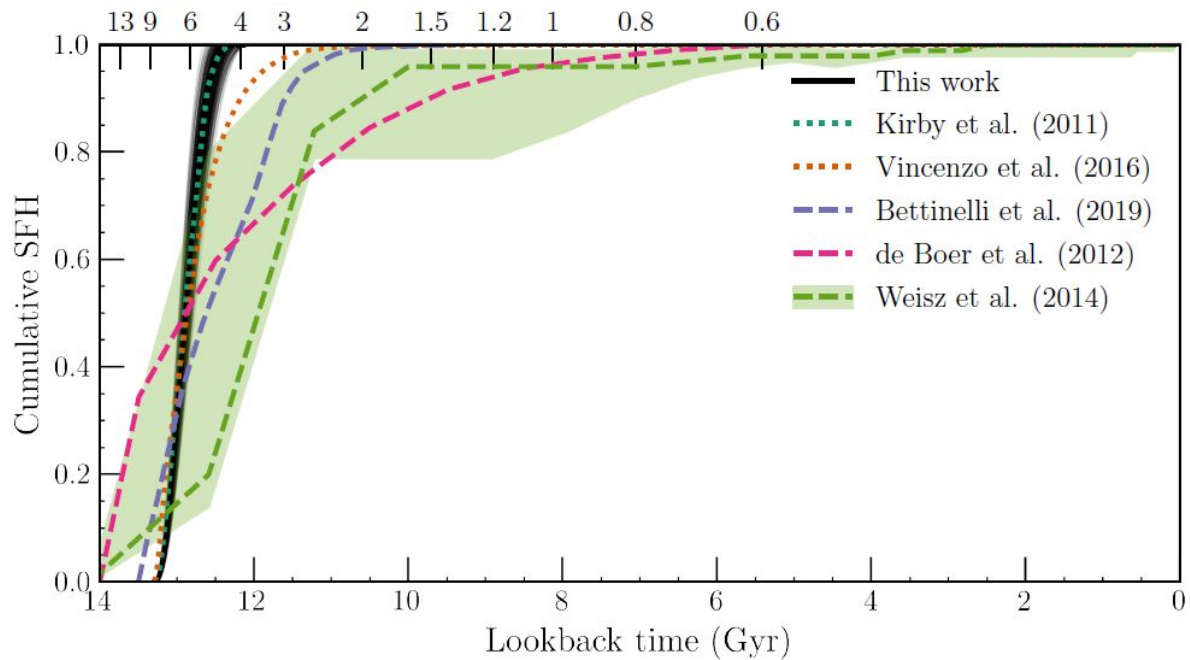
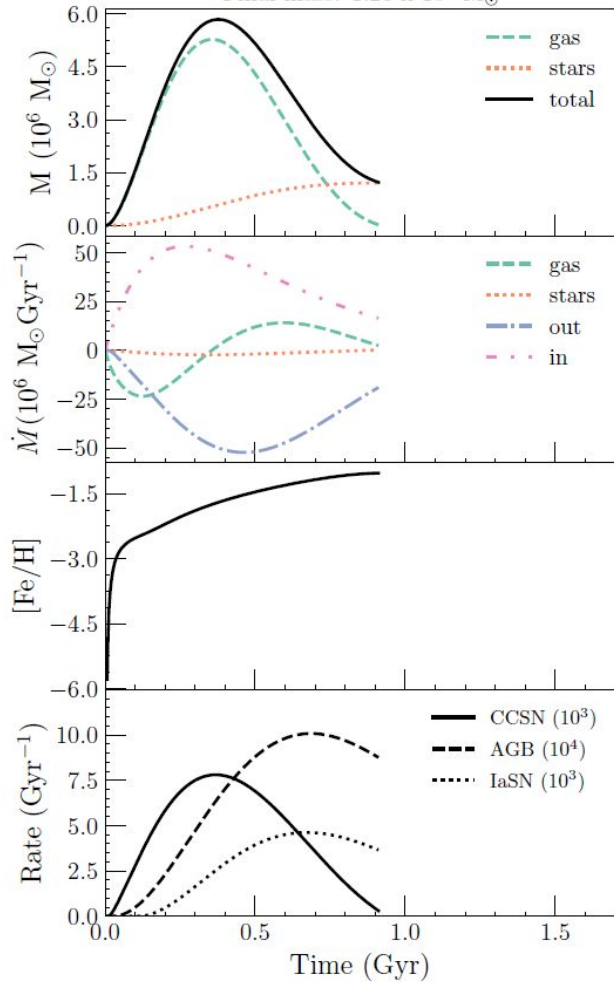


Figure 1. Delay time distributions (DTDs) of core-collapse supernovae, AGB stars, and Type Ia supernovae, illustrating the different timescales that these events probe. The slight discontinuity in the AGB DTD arises from the different equations used to describe stellar lifetimes for stars with masses above and below $6.6 M_{\odot}$ (Equations 8 and 9).





Final mass: $1.23 \times 10^6 M_{\odot}$



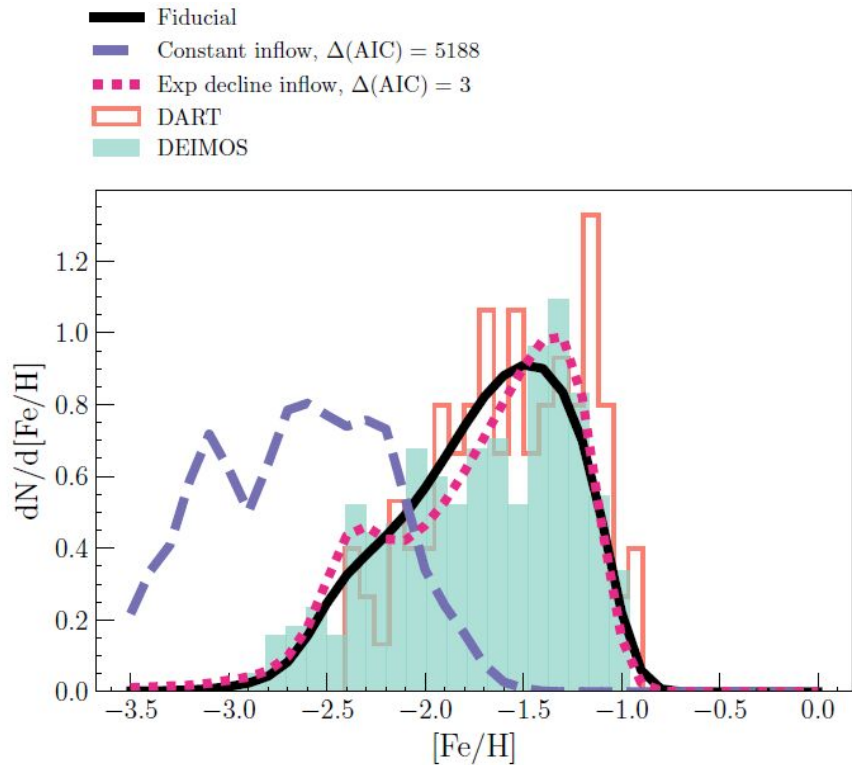


Figure 8. Comparisons between the MDFs of Sculptor from the fiducial GCE model (black solid line) and from models with other gas inflow parameterizations. The assumed parameterization of gas inflow significantly influences the shape of the MDF.