The chemical evolution of the smallest Milky Way satellites: Boötes I

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The predictions of classical chemical evolution models, where the galaxy forms through smooth accretion of gas of primordial chemical composition with no interactions with the surroundings, are contrasted with the results of chemical evolution models run in a full cosmological context, i.e. assuming mass assembly and star formation histories derived from the combination of merger trees with semi-analytical modeling. The model predictions are compared to available high-resolution abundance data for giant stars in Boötes I. We confirm previous findings that Boötes I has formed stars at very low rates, turning in stars only ~1% of its gas. However, at variance with previous work, we do not find any clear-cut evidence that supernovae have sustained long-lasting galactic-scale outflows in this galaxy: in order of get rid of the gas left over from the star formation process, we need external mechanisms such as ram pressure and tidal stripping.