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Abstract for an Invited Paper  
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### **Chemical Evolution in Simulations of Galaxy Formation**

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The talk gives an overview of recent state-of-the-art simulations aimed at probing chemical evolution in the larger context of cosmological galaxy formation. The focus of the talk is on new features of the IllustrisTNG models - a set of gravitational, hydrodynamical, MHD cosmological simulations aimed at resolving from the formation of galaxy clusters down to the structures of Milky Way dwarf galaxies. I will conclude with some preliminary results on the distribution of elements in these simulations, including alpha and r-process elements, and discuss ongoing efforts to robustly compare observational and simulated data.