

# Intrinsic Scatter of the Mass-Metallicity Relation in Illustris Dwarfs

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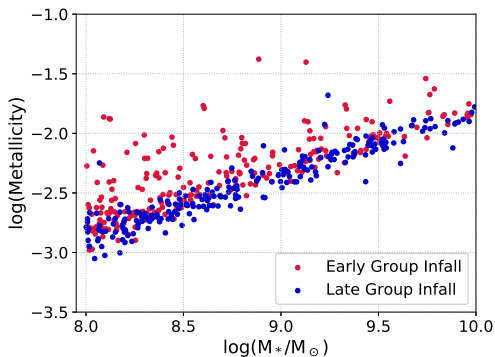
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# Mass, Metallicity & Group Infall

Galaxies of an Illustris cluster at  $z = 0$  with total mass  $3.8 \cdot 10^{14} M_{\odot}$

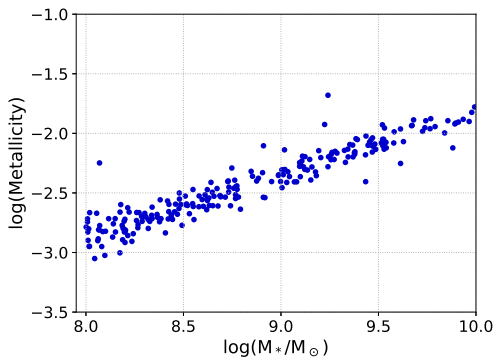
- Group: Halo with  $M_{tot} \geq 10^{12} M_{\odot}$
- Scatter of total sample: 0.18 dex



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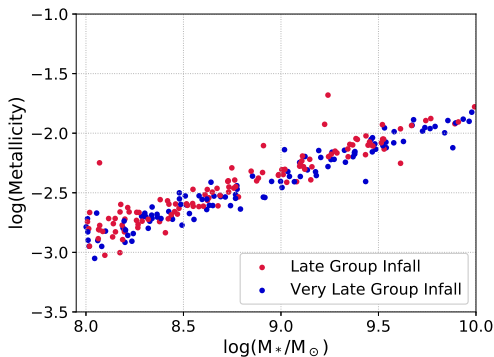
- Group: Halo with  $M_{tot} \geq 10^{12} M_{\odot}$
- Scatter of total sample: 0.18 dex
- Scatter of late infallers: 0.099 dex



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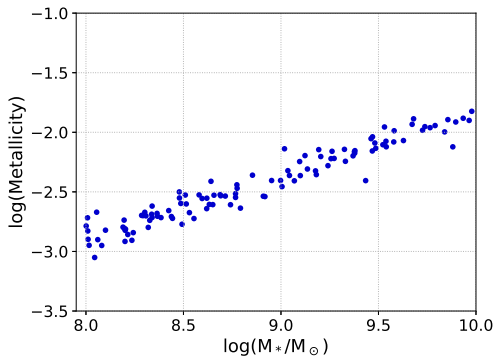
- Group: Halo with  $M_{tot} \geq 10^{12} M_{\odot}$
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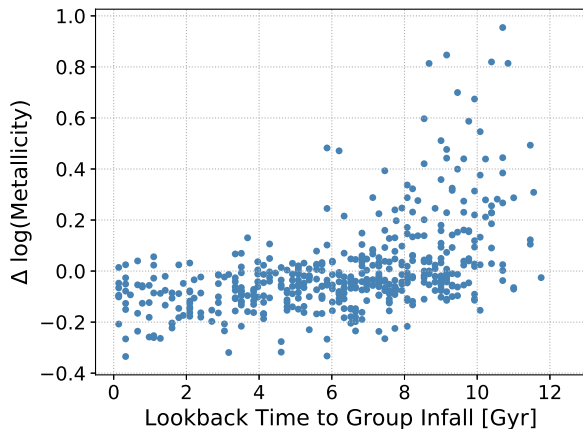
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- Group: Halo with  $M_{tot} \geq 10^{12} M_{\odot}$
- Scatter of total sample: 0.18 dex
- Scatter of late infallers: 0.099 dex
- Scatter of very late infallers: 0.080 dex

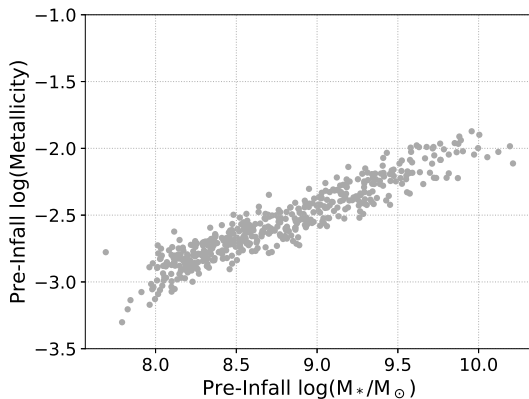


# Metallicity Residuals



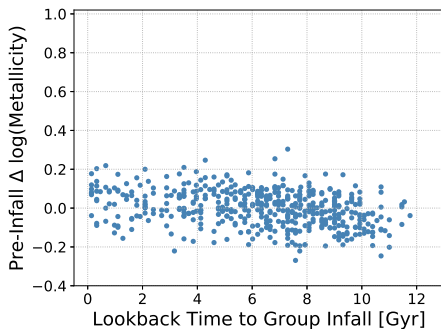
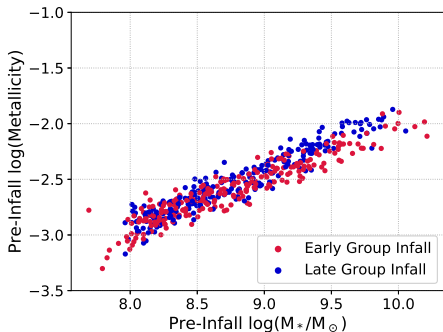
# Pre-Infall Mass-Metallicity Relation

Scatter for pre-infall progenitors: 0.092 dex



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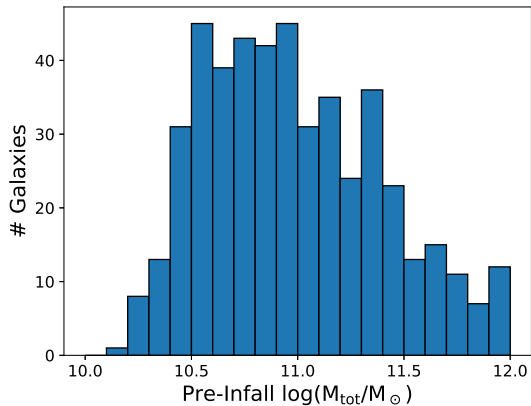
Scatter for pre-infall progenitors: 0.092 dex







# Host Halo Masses



# Metallicity Ratios

