

Metal Enrichment of the Intra-Cluster Medium: Ram-Pressure Stripping of Cluster Galaxies and the Feedback of Intra-Cluster Supernovae

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The Intra-Cluster Medium (ICM) contains a significant amount of metals. As heavy elements are produced in stars there are two principle ways to enrich the ICM. On the one hand chemical enriched material is produced by the stellar population of the cluster galaxies and is subsequently expelled from the host galaxy to the ambient medium. Here we present hydrodynamic simulations investigating the effect of ram-pressure stripping of cluster galaxies. On the other hand the ICM is enriched directly by intra-cluster stars and intra-cluster supernovae. We have also investigated the influence of this mechanism on the chemical enrichment and heating of the ICM. The efficiency, resulting spatial distribution of the metals and the time dependency of this enrichment process on galaxy cluster scale will be shown in this presentation.

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