Title:	Ram pressure stripping: an analytical approach
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Keywords:	Galaxies: clusters: intracluster medium Galaxies: evolution Galaxies: groups: general
Issue Date:	2019
Publisher:	Oxford Academic
Citation:	Monthly Notices of the Royal Astronomical Society, 489(4), pp. 5582-5593.
Abstract:	We take an analytical approach to study ram pressure stripping, using simple models for discs and the distribution of halo gas to look at this phenomenon in cluster, group and galaxy haloes. We also study variations in galaxy properties and redshift. In each case, we model the worst-case scenario (i.e. the maximum effect resulting from ram pressure). We show that the worst-case scenario is not affected greatly by changes in redshift. We find that gas discs in galaxies with a higher spin parameter are stripped sooner than galaxies with a smaller spin parameter. Galaxies in cluster haloes are stripped of gas more efficiently compared with group and galaxy haloes, because they have a higher infall speed and a higher density of gas in the intra-cluster medium (i.e. as a result of a greater retention of baryons). We comment on the limitations of our model, and we look at and illustrate a situation where a significant amount of gas may be retained in the galaxy disc. Finally, we discuss the implications for star formation in galaxies during infall into haloes.
Description:	Only IISERM authors are available in the record.
URI:	https://academic.oup.com/mnras/article/489/4/5582/5575211 (https://academic.oup.com/mnras/article/489/4/5582/5575211) http://hdl.handle.net/123456789/2320 (http://hdl.handle.net/123456789/2320)
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