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Observations of spatial scales of the terrestrial bow shock

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The spatial scales of collisionless shocks are fundamental to the interactions at the shock front. Cluster data enable the separation of spatial-temopral variation in a huge range of scales from hundreds of kilometres to a few Debye lengths corresponding to the inter-satellite separation and electric field probe separation on an individual spacecraft respectively. These data are used to present an overview of spatial scales that correspond to fine structure of terrestrial bow shock.