

## Two-dimensional interaction processes between a bow shock and an interplanetary Alfvénic disturbance

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The interaction processes between a bow shock and an interplanetary Alfvénic disturbance are studied by means of numerical simulation. In the 1D system, we have found that an increased plasma density (and a reversely reduced magnetic field) region is formed in the region downstream of the shock after such an interaction. How this density structure is modified in the 2D simulation will be presented.