

The Bow Shock. Preface.

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A symposium on the *Physics of the Plasmapause* was organized in Trieste (September 1974), and most of the papers presented there have been published in *Annales de Geophysique*, **31**, 1, 1-193. For the meeting of the European Geophysical Society held in Amsterdam (September 1976), we convened a symposium on *The Earth's Magnetopause Regions*. The proceedings of this symposium have been published in the *Journal of Atmospheric and Terrestrial Physics*, **40**, 3, 231-394. Continuing the theme of boundary layers in magnetospheric physics and, moving out to the third frontier, we planned a symposium on *The Bow Shock* which was part of the fifth EGS meeting held in Strasbourg (August 31 - September 1, 1978).

There were various reasons for making this choice, the first being that no such symposium reviewing in great detail this interesting topic had ever been organized previously. Furthermore, there was no reference volume covering both theoretical aspects and experimental studies of the magnetospheric bow shock. Therefore, we thought that it would be useful to invite eminent plasma physics experts and space physicists to review the theories and observations of the collisionless bow shock ahead of the Earth's magnetosphere.

On the other hand, during the last ten years research interest in collisionless shocks has severely decreased both in laboratory and space studies. However, the recent successful operation of the ISEE satellites, especially well equipped to study the plasma physics of the bow shock, now provides a strong

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motivation for revival of interest in this last magnetospheric boundary layer. Several new results obtained from ISEE observations are reported in this volume of *Nuovo Cimento C*. We appreciate the co-operation of all authors who made this reference volume available to the scientific community in the shortest possible time.

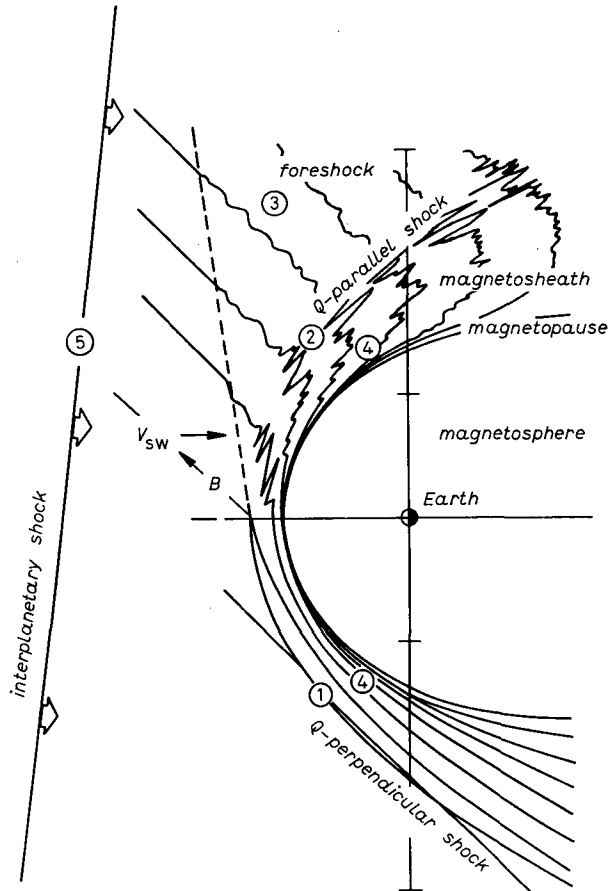


Fig. 1.

Brief reports on the symposium have been published in *Nature*, **275**, 694, October 1978, and also in the *European Geophysical Society Newsletter*, No. 14, 7-8, January 1979.

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