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Fine structure of plasma turbulence in the vicinity of the Venusian bow shock

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Venus Express magnetometer data is used to study turbulence in the vicinity of the Venusian bow shock. The main differences between anomalous processes at the terrestrial and Venusian magnetosheath and shock are a result of two factors: absence of a planetary magnetic field and mass loading processes. The conditions for various plasma instabilities and the composition of plasma turbulence are significantly affected by these differences. VEX magnetometer data at the high sample rate of 32Hz is used to identify the composition of plasma turbulence both upstream and downstream of the shock front and to assess dynamical processes within it.