

SHOCKS IN THE HELIOSPHERE: OPEN QUESTIONS

Michael Gedalin

*Department of Physics, Ben-Gurion University of the Negev, Beer-Sheva,
Israel*

Collisionless shocks have been studied for more than five decades. From time to time it seems that most of the questions are answered and the shock physics is essentially understood. Each time this impression is broken due to the progress in observations and numerical simulations, which brings about the necessity to update our views and develop theory. Recent advances posed a number of new questions. We will concentrate on the deviations of the shock front from planar shape (rippling), non-stationarity, and effects of high energy particles. The three issues are inter-connected and have a potential to change our understanding of how high-Mach number shocks work.