摘要： As the solar wind flows past the magnetosphere, currents flow consistent with the diversion of the solar wind flow around the magnetosphere and the transmission of tangential stress to the magnetosphere.  In this talk I will examine these current systems and discuss where and how forces are exerted on the solar wind flow.  I will explore where solar wind mechanical energy is extracted from the flow and returned to the flow.  I will also discuss the role of the Chapman-Ferraro current at the magnetopause, and the role of this current in standing off the solar wind.  We will see that there are significant differences int the nature of the force balance between high Mach number and low Mach number solar winds flows.