

Cross-Energy Coupling

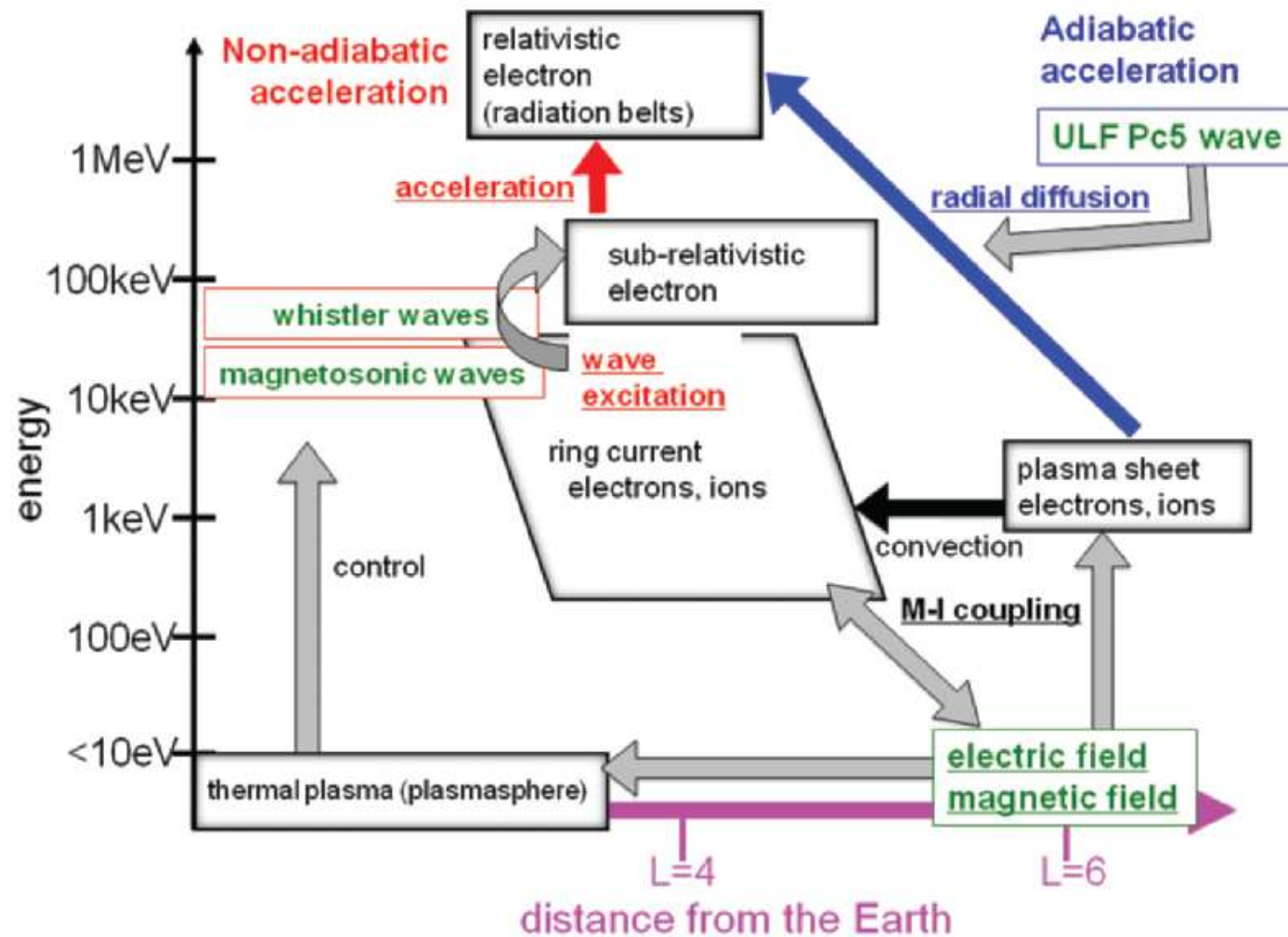
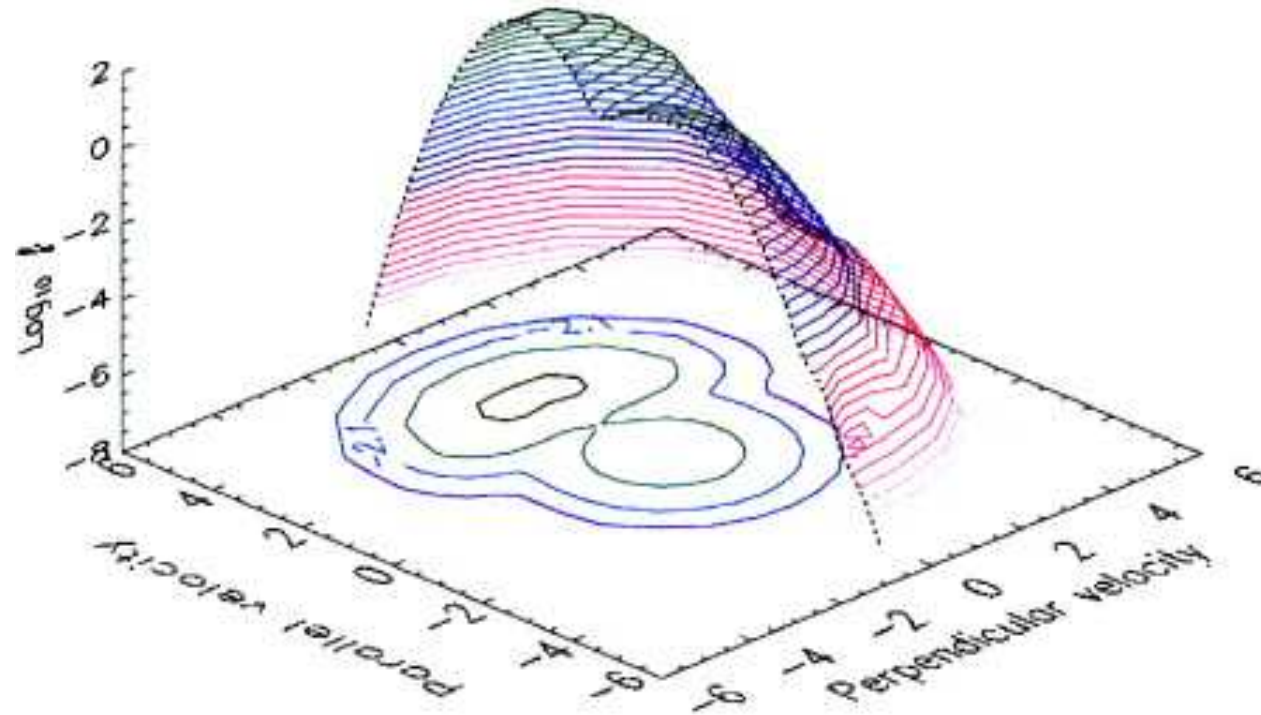


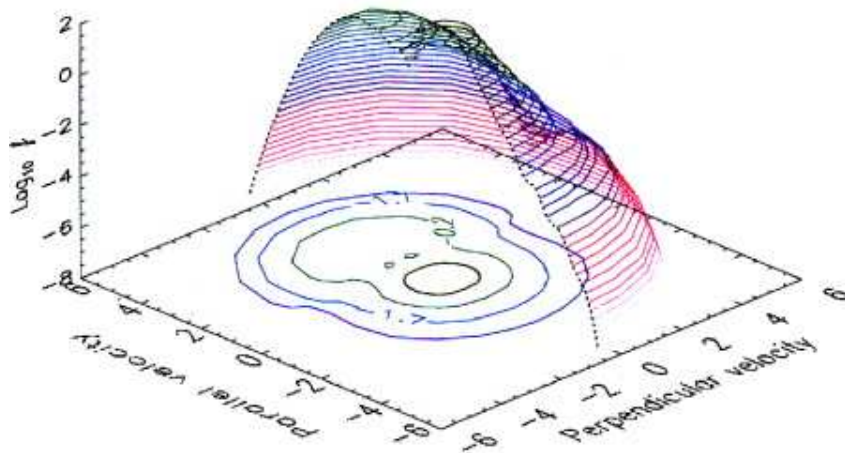
Table 1. Characteristics of Inner Magnetospheric Plasma Populations

Population	Density	Temperature	Source	Composition
Plasmasphere	100s cm^{-3} to 1000s	<1 eV, maybe up to 10s of eV	Subauroral ionosphere	H^+ , some He^+ and O^+
Ring current	$\sim$ few cm^{-3} , up to 10s	1–400 keV	Plasma sheet (SW and iono)	H^+ , O^+ in storms
Radiation belts	$\ll$ 1 cm^{-3}	100s of keV to MeV	Plasma sheet, SEPs, local acc.	Mostly e^- , some H^+

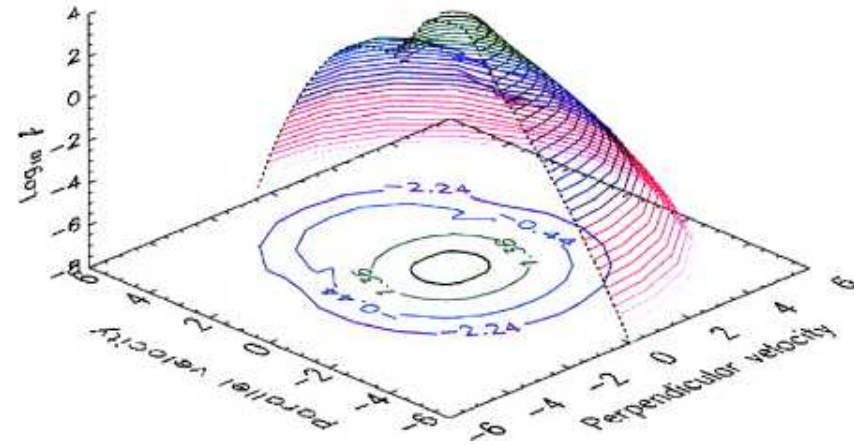
Velocity distribution function at 2000 km



Velocity distribution function at 1250 km



Velocity distribution function at 1000 km



hot, isotropic

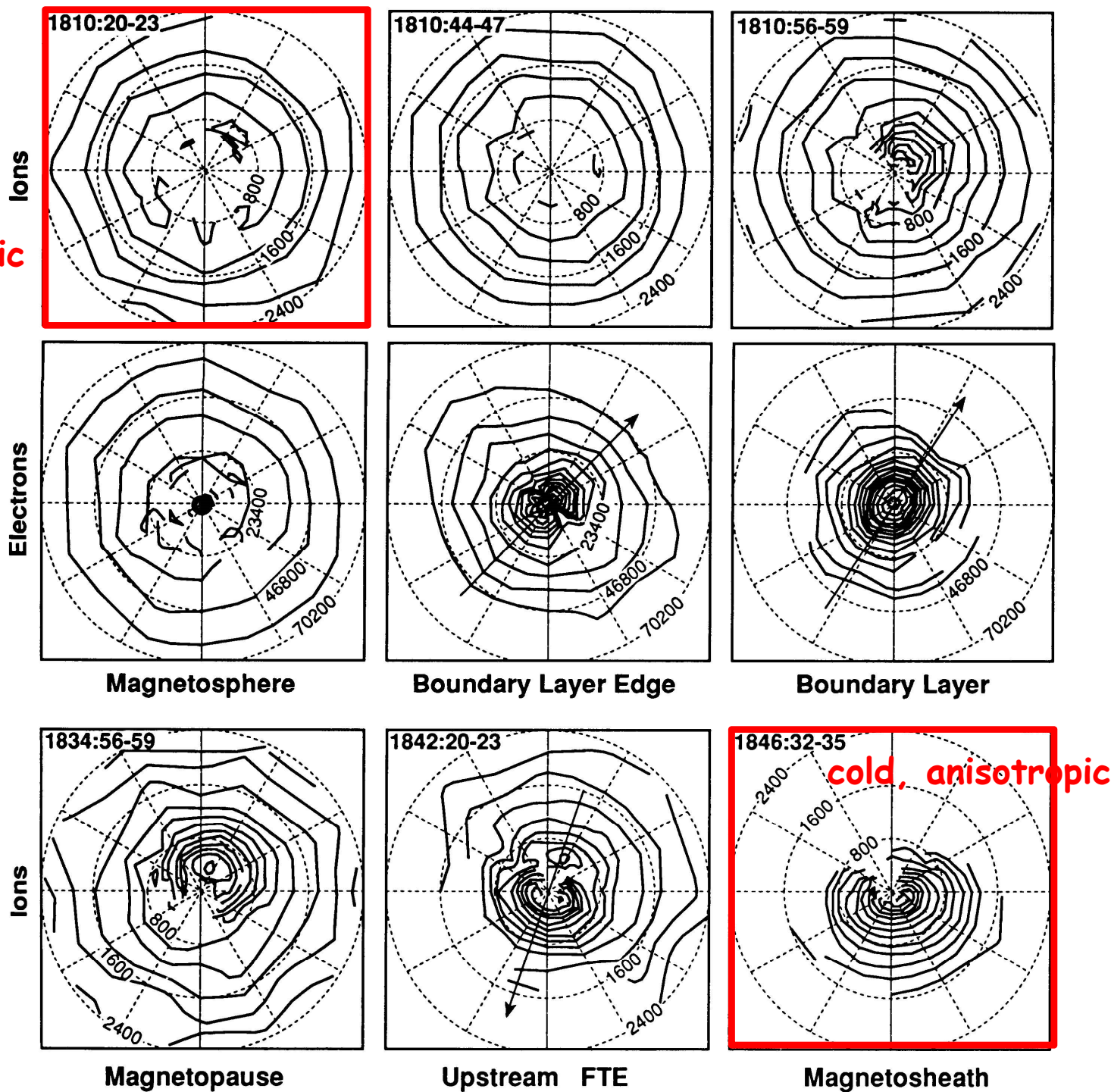


Fig. 9.25 in M. G. Kivelson and C. T. Russell (1995)

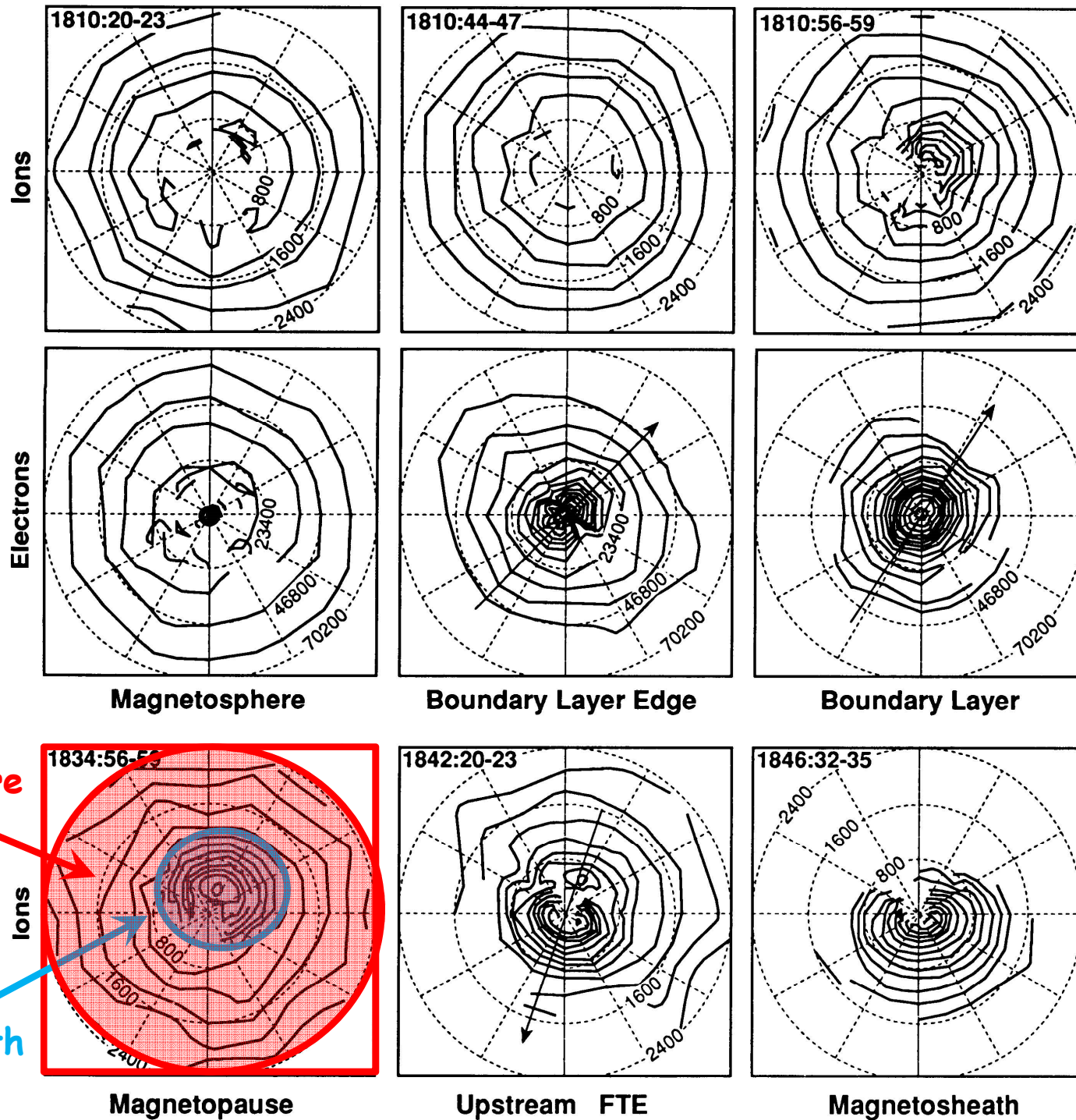


Fig. 9.25 in M. G. Kivelson and C. T. Russell (1995)