

Neutral Beam Commissioning and Measuring Edge Fluctuations



- 1) The beam-emission spectroscopy (BES) diagnostic has measured vertical profiles (used to calculate widths) of a new Budker Institute “cold-cathode” diagnostic neutral hydrogen beam (DNB) on Alcator C-Mod. The widths are compared to the beam specifications as well as measurements of the “magnetic-bucket” beam made in the previous campaign.
- 2) Fluctuations in both the beam and ambient emission were measured. The BES views were concentrated just inside the outer separatrix where these plasma-induced fluctuations are high. Specific attention was given to detecting and characterizing the quasi-coherent mode seen during enhanced D_{α} discharges.