

**A Combined Function Beam Emittance and Profile Measuring System for the ISIS 665 keV H- Pre-Injector, M.A. CLARKE-GAYTHER, CCLRC RAL** - A description is given of the combined function, beam emittance and profile measuring system, installed on the 665 keV H- pre-injector at ISIS, the high intensity pulsed neutron source at the Rutherford Appleton Laboratory. The computer controlled system, consisting of in-vacuum beam analysing slits and multiwire detectors, linear actuators, absolute position encoders, motor drives, and signal conditioning electronics, measures the transverse emittance and profile of the 300 us, 35 mA, 665 keV H-beam, with high precision.