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Measurement of Tensor Analyzing Powers in Elastic Electron Deuteron Scattering with BLAST[1] MICHAEL KOHL, MIT, BLAST COLLABORATION — A precision measurement of the deuteron tensor analyzing powers T_{20} and T_{21} in elastic electron-deuteron scattering has been carried out at the MIT-Bates Linear Accelerator Center. Data were collected simultaneously over a momentum transfer range of 2.15 to 4.5 fm^{-1} using a polarised, stored electron beam; the Bates Large Acceptance Spectrometer Toroid (BLAST) detector; and a highly polarized, internal deuterium gas target. The elastic deuteron form factors G_C and G_Q were extracted with improved precision using the new data; confirming the location of the first node of the charge monopole form factor. The new data provide strong constraints on nuclear models in a momentum transfer range covering the minimum of T_{20} and the first node of G_C.

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