Structure of Resistive Wall Modes in DIII-D\textsuperscript{1} L.C. JOHNSON, E.D. FREDRICKSON, M. OKABAYASHI, Princeton Plasma Physics Laboratory, R.J. LA HAYE, J.T. SCOVILLE, E.J. STRAIT, R.T. SNIDER, General Atomics, A.M. GAROFALO, G.A. NAVRATIL, Columbia University, M. GRYAZNEVICH, UKAEA — Resistive wall modes limit the performance of DIII-D discharges when beta exceeds the no-wall ideal stability limit. These slowly rotating, $n=1$ modes are normally detected on DIII-D by a six-coil toroidal array of large-area sensor loops, each covering a 60 degree arc on the midplane. Two new 12-loop arrays of external saddle loops above and below the midplane are now acquiring data routinely. The combined array of 30 saddle loops provides information about both the poloidal and toroidal structure of RWMs. Chord-by-chord comparisons of three identical soft x-ray cameras distributed in a toroidal array confirm the expected kink-like internal structure. The observed poloidal and internal structure will be compared with code predictions.

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