The Distribution of Particulate Sizes Observed in DIII-D During Normal Plasma Operation\textsuperscript{1} J. BURKART, UC-Davis, B.D. BRAY, W.P. WEST, General Atomics — Large dust particulates of characteristic size greater than $\sim 30$ nm have been observed in the scrape-off layer and divertor regions of the DIII-D tokamak during normal plasma operations from Rayleigh scattering of 1.06 $\mu$m light from the existing Nd:YAG laser array and Thomson scattering system \cite{1}. Here we discuss techniques to estimate the particulate size distribution from the measured pulse height distribution of scattered laser light. The data suggest a double-peaked distribution of particulate sizes. One group of particulates is small enough ($\lesssim \lambda/10$) that the Rayleigh scattering approximation holds. Estimates of the size distribution of the group of larger dust particulates require the Mie scattering formulation.

\textsuperscript{1}\cite{1} B.D. Bray, W.P. West, and J. Burkart, “Dust Measurements with the DIII-D Thomson System,” this conference.

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