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SOLPS Modeling of Transport of the Super-X Divertor for the CFNS/Fusion-Fission Hybrid BRENT COVELE, MIKE KOTSCHENREUTHER, SWADESH MAHAJAN, PRASHANT VALANJU, University of Texas at Austin — Recent transport results from the B2-Eirene fluid/Monte-Carlo code will be presented for the Super-X Divertor in the Compact Fusion Neutron Source, a high-power-density, low-aspect-ratio double-null tokamak design. The Super-X Divertor, a novel magnetic geometry, greatly reduces heat fluxes and plasma temperatures at the outer target plates (with an outer:inner total power ratio of 10:1) while maintaining excellent core plasma shape characteristics.

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