



NASA Glenn Faculty Fellowship Program

Glenn Research Center

Office/Division Name: LCA

Branch Name: Systems Architecture and Analytical Studies Branch of the Communications and Intelligent Systems Division

Research/Engineering Area / Topic: Millimeter-Wave Components And Propagation, Atmospheric Entry Plasma Blackout

Description of Research/Engineering Work to Be Performed

Non-Contact Millimeter-Wave Diagnostics of Plasma Properties

Brief background and NASA mission/program support

FY2025 Center Innovation Fund

Objective(s) of project

Correlate backscattered millimeter-wave distortion products with plasma properties measured from convention methods.

Specific Faculty Fellow Assignment

Develop models based on plasma theory and empirical results.

Expected Outcome(s)

Enable low-latency, high-data-rate telemetry through plasma.

Contact: GRC-NGFFP@mail.nasa.gov