

# An Improved RF-Sheath Boundary Condition and Implications for ICRF Modeling [THW/P4-21]

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- A new impedance-based rf-sheath boundary condition has been developed to improved the fidelity of global ICRF codes for edge modeling.
- It will enable prediction (and avoidance) of undesirable regimes causing e.g.:
  - rf impurity sputtering, convective cells & transport, enhanced local heat flux & material damage, global parasitic rf power loss.
- Implementation in global ICRF codes is needed; testing is in progress.

Verification case showing normalized rf sheath impedance and ICRF surface power deposition

