

Abstract Submitted
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An Experimental study of the non-ideal effects of the radial Ohm's law in the Flowing Magnetized Plasma experiment JIAHE SI, ZHEHUI WANG, Los Alamos National Lab — The radial ideal Ohm's law in the Flowing Magnetized Plasma (FMP) experiment is studied experimentally. Two probes are designed and built to measure all terms in the radial ideal Ohm's law, plus electron temperature and density to estimate the importance of the non-ideal effects in the Ohm's law. The experimental data shows the ideal Ohm's law is not fully satisfied, the Hall effect is the most important effect, and the importance of the Hall effect is correlated to the ion skin depth.

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