Abstract Submitted
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Increasing helicity to achieve a dynamo state on the Three-Meter system[1] RUBEN ROJAS, ARTUR PEREVALOV, TILL ZURNER, DANIEL LATHROP, Department of Physics, Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, Maryland — Dynamo theory describes the generation of magnetic fields in the flows of conducting fluids, for example, in stars and planetary cores. Spherical Couette flows, which are flows between two concentric and independently rotating spheres, is one of the experimental models for achieving this task in the laboratory. We have performed dynamo state search in our three-meter spherical-Couette model reaching up to $Re \sim 10^8$ with amplifications of the field between 10-30

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