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Experimental evidence of wave propagation phenomena inside a cylindrical cavity of liquid metal produced by an oscillating magnetic field[1] MONTSERRAT ANA MIRANDA, JAVIER BURGUETE, University of Navarra — We report results on the magnetic instability that takes place inside a cylindrical cavity containing a liquid metal alloy at room temperature (InGaSn). The cell remains static while an oscillating frame of coils perturbs the initially quiescent metal liquid. The gradient of the non-oscillating magnetic field at the boundaries is obtained from the grid measurements over an axisymmetric plane. The flow in the bulk is studied from potential differences. We report the internal-wave dynamics for different frequencies of the oscillating magnetic field.

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