

# Global well-posedness for the three-dimensional incompressible viscous non-resistive MHD equations in an infinite slab

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## Abstract

In this paper, we investigate the global well-posedness of the system of incompressible viscous non-resistive MHD fluids in a three-dimensional horizontally infinite slab with finite height. We reformulate our analysis to Lagrangian coordinates, and then develop a new mathematical approach to establish global well-posedness of the MHD system, which requires no nonlinear compatibility conditions on the initial data.

## Hosted file

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