

# On strong solutions to the equation of motion of compressible viscous fluid flow on an exterior domain

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I would like to talk about a global in time unique existence theorem of solutions to the equation describing the motion of compressible viscous fluid flow in a two dimensional exterior domain for small initial data. This is an extension of the work due to Matsumura-Nishida (*Commun. Math. Phys.* **89** (1983), 445–464), where they proved a global in time unique existence theorem for small initial data in a three dimensional exterior domain. I also present some decay properties of solutions in the Banach space setting.

The talk is based on a joint work with Y. Shibata.