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Seminar

Global Existence for a Class of Large Solutions to the Isentropic Compressible Navier-Stokes Equations with Vacuum

Professor Guangyi Hong
Department of Mathematics
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Abstract: In this talk, we will show the global existence and uniqueness of classical solutions with large initial energy and vacuum to the Cauchy problem for the 3D isentropic compressible Navier-Stokes equations under the assumption that the fluid is almost isothermal (i.e., $\gamma - 1$ is small enough), and that the far-field density $\tilde{\rho}$ is vacuum or close to vacuum. Our results generalize the ones in [X.D. Huang, J. Li, Z.P. Xin, Comm. Pure Appl. Math. (2012)] on classical solutions with vacuum and small energy (large oscillations). This is joint work with Xiaofeng Hou, Hongyun Peng and Prof. Changjiang Zhu.

Date: 1 November 2021 (Monday)
Time: 4:00 p.m. – 5:00 p.m. (Hong Kong Time)
Zoom Link: <https://cuhk.zoom.us/j/7028540983>
Meeting ID: 702 854 0983
Passcode: 202122

All are Welcome!