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Kinetic Seminar

Recent development in the Boltzmann equation in some non-convex domains

by

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Abstract :

Global wellposedness and asymptotic stability of the Boltzmann equation with specular reflection boundary condition in 3D non-convex domain is an outstanding open problem in kinetic theory. Motivated by Guo's L^2 - L^∞ theory, the problem was completely solved for general C^3 domain, but it is still widely open for general non-convex domains. The problem was solved in cylindrical domain with analytic non-convex cross section. Generalizing previous work, we study the problem in generalized solid torus, a solid torus with general analytic convex cross-section. This is the first results for the domain which contains essentially 3D non-convex structure. This is a joint work with Chanwoo Kim and Gyeonghun Ko.

Date : August 4, 2022 (Thursday)
Time : 10:30-11:30am (Hong Kong SAR)
Zoom link:
<https://cuhk.zoom.us/j/92852331297?pwd=NDVZaGZBRXJxRk16bXRHL3I2dkNtZz09>
Meeting ID: 928 5233 1297
Passcode: 20220804

All are Welcome