# PolyU-PDE Seminar

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## Topic 1
### Zero-viscosity limit of the compressible Naiver-Stokes equations in the analytic setting
### Date| Time
10 Nov 2023 (Friday) | 4pm – 5pm (HK Time)

### Zoom link
https://polyu.zoom.us/j/97653074755?pwd=b2JwVDRGVGlXV0U2UVZMdkQyTzVtQT09

### Meeting ID | Passcode
976 5307 4755| 1110

### Abstract

In this talk, we study the zero-viscosity limit of the compressible Navier-Stokes equations in a half-space with non-slip boundary condition. We justify the Prandtl boundary layer expansion for the analytic data:  the compressible Navier-Stokes equations can be approximated by the compressible Euler equations away from the boundary, and by the compressible Prandtl equation near the boundary. This work is joint with Prof. Zhang and Prof. Wang.

## Topic 2
### The local well-posedness of water wave equations in a corner domain
### Date| Time
17 Nov 2023 (Friday) | 4pm – 5pm (HK Time)

### Zoom link
https://polyu.zoom.us/j/95986145883?pwd=RHNZZ3RXYnhNQVRZMjh3aC9lRjl6UT09

### Meeting ID | Passcode
959 8614 5883| 1117

### Abstract

In this talk, I will talk about the local well-posedness of water wave equations with surface tension in a corner domain.  The proof contain two key points. First,  we use geometry structure to describe the water wave equations. Second, we use the theory of elliptic equation in the corner domain to deal with singularity.

**ALL ARE WELCOME**