

**Name:** Tsuyoshi Yoneda

**Research field:** Differential equations, Functional analysis, Real analysis

**Keywords:** Navier-Stokes equations, Euler equations, geophysics, turbulence, Fourier analysis

**Current research interests:**

1. The Coriolis force plays a significant role in the large scale flow considered in meteorology and geophysics. My first research interest is to analyze the rotating Navier-Stokes and Euler equations mathematically.
2. Recently, some researchers made breakthrough in the incompressible Euler study field. They analyzed hyperbolic flow configurations with characteristic curve observation and deep estimates of the pressure term. The most important recent works must be Bourgain-Li (2014, *Inventiones Math.*) and Kiselev-Sverak (2014, *Annals of Math.*). My second research interest is to analyze such hyperbolic flow configurations to progress the pressure analysis.

**Notice for the students:** Highly motivated students are welcome to my research group.