1138-35-350   **Guher Camliyurt*** (`camliyur@usc.edu`), 3620 S. Vermont Ave. Math Department, KAP 104, Los Angeles, CA 90089, **Igor Kukavica** (`kukavica@usc.edu`), 3620 S. Vermont Ave. KAP 104, Los Angeles, CA 90089, and **Vlad Vicol** (`vvicol@math.princeton.edu`), Department of Mathematics, Princeton University, Fine Hall, Washington Road, Princeton, NJ 08544. *Analyticity Results for the Euler and Navier-Stokes Equations.*

We revisit the preservation of analyticity and Gevrey regularity for the Euler equation. We provide a result on preservation of Gevrey norm and analyticity in Lagrangian formulation of the Euler equation and discuss the validity of the result in the Eulerian variables.

Next, we consider the Navier–Stokes equations posed on the half space, with Dirichlet boundary conditions. We give a direct energy based proof for the instantaneous space-time analyticity and Gevrey class regularity of the solutions, uniformly up to the boundary of the half space. (Received February 13, 2018)