

1167-35-311

Alex Himonas and **Dionyssios Mantzavinos*** (mantzavinos@ku.edu), Department of Mathematics, University of Kansas. *The Nonlinear Schrödinger Equation on the Half-Plane.*

The initial-boundary value problem for the nonlinear Schrödinger (NLS) equation on the half-plane is studied by advancing into two dimensions an approach recently developed for the well-posedness of NLS on the half-line. Using the solution formula produced via the unified transform of Fokas for the associated linear problem, it will be shown that the nonlinear problem is well-posed in the Hadamard sense for initial data in Sobolev spaces and boundary data in appropriate Bourgain spaces. (Received March 09, 2021)