Calculation of complex singular solutions to the 3D incompressible Euler equations MICHAEL SIEGEL, Dept. of Mathematical Sciences, NJIT — We describe an approach for the construction of singular solutions to the 3D Euler equations for complex initial data. The approach is based on a numerical simulation of complex traveling wave solutions with imaginary wave speed, originally developed by Caflisch for axisymmetric flow with swirl. Here, we simplify and generalize this construction to calculate traveling wave solutions in a fully 3D (nonaxisymmetric) geometry. This is joint work with Russ Caflisch.

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