

# Compressible turbulence in a bottle

In experimental turbulence research, a great effort has been concentrated on the special case of incompressible flow, for which the Mach Number is very low. Yet many common flows are compressible, even when the flow is not yet supersonic and the Mach number is still less than one. These cases include for instance the flows around and through airplanes and automobiles. Our most basic ideas for how to explain turbulence probably do not survive in compressible flows. In this project, we will design and build a world-unique facility for producing and observing controlled compressible turbulence, in order to help uncover what laws might govern its structure.

To apply please send a letter and CV to Professor Gregory Bewley <[gpb1@cornell.edu](mailto:gpb1@cornell.edu)>.