

Abstract Submitted
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The turbulent flow generated by inhomogeneous multiscale grids
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TOS VASSILICOS, Imperial College London — A group of inhomogeneous multi-
scale grids have been designed and tested in a low speed wind tunnel in an attempt
to generate bespoke turbulent shear flows. Cross-wire anemometry measurements
were performed in different planes parallel to the grid and at various streamwise
locations to study turbulence development behind each of the different geometry
grids. Two spatially separated single hot wires were also used to measure transverse
integral length scale at selected locations. Results are compared to previous studies
of shearless mixing layer grids and fractal grids, including mean flow profiles and
turbulence statistics.

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