Abstract Submitted
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Effect of heat transfer on turbulent boundary layers[1] IZAAK BEEKMAN, M. PINO MARTIN, Princeton University — We use direct numerical simulation to gather a database of hypersonic turbulent boundary layers at different flow conditions varying heat transfer. A statistical description of the data is given, including the effect of wall-temperature condition on fluctuation levels, Reynolds stresses, energy and vorticity budgets, Reynolds analogies, skin friction, wall- pressure loading, and entrainment. Additionally, the turbulence structure is visualized and characterized.

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