A new k-epsilon model consistent with Monin-Obukhov similarity theory

A new k-epsilon model is introduced that is consistent with Monin–Obukhov similarity theory (MOST). The proposed k-epsilon model is compared with another k-epsilon model that was developed in an attempt to maintain inlet profiles compatible with MOST. It is shown that the previous k-epsilon model is not consistent with MOST for unstable conditions, while the proposed k-epsilon model can maintain MOST inlet profiles over distances of 50 km.

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