TRANSITION MODELLING

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ABSTRACT

The objective of the mini-symposium is to create a forum for presentation of the latest advancements in modelling of laminar-turbulent transition in boundary layer flows within RANS and LES simulation methods. The emphasis is on models with the capability to sense the influence of the turbulence properties of the core flow (turbulence intensity, length scale, …) and the global properties of the core flow (e.g. flow unsteadiness). The objective is modelling. So, the mini-symposium does not aim to collect research work on fundamental understanding of transition mechanisms by Direct Numerical Simulation nor experimental research work with the same aim. Within RANS and LES simulation techniques, the transition models may take any form, ranging from algebraic modifications of existing RANS and LES turbulence models to turbulence models where supplementary equations are added to describe transition phenomena. Models that have a clear engineering applicability are especially encouraged.