

Abstract Submitted
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Global stability and receptivity of swept attachment line boundary layer¹ GIANLUCA MENEGHELLO, CNRS/Ecole Polytechnique, PETER SCHMID, PATRICK HUERRE, Ecole Polytechnique — The global stability and receptivity of the incompressible, viscous flow in the leading edge region of a swept wing is examined by solving the eigenvalues/eigenmodes problem associated with the Navier-Stokes operator linearized around a steady state base flow. A branch of eigenvalues is identified, which is associated with eigenvectors displaying a connection between attachment line and crossflow structures. The wavemaker region for these eigenvectors is shown to be close to the attachment line by computing the corresponding solution to the adjoint eigenvalue problem.

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Gianluca Meneghello
CNRS/Ecole Polytechnique

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