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Sommario	Stability and turbulence are often studied as separate branches of fluid dynamics, but they are actually the two faces of the same coin: the existence of equilibrium, laminar in one case and steady in the mean in the other. The link between these two faces is transition. Initial value problems are considered to analyse the dynamics of disturbances in the three phases. In the context of stability, linearised equations of motion can be used. Although this is a substantial simplification, the results that are obtained with this analysis are far from being trivial. The transition to turbulence through the dynamics of disturbances is discussed in the context of the zig-zag instability: a particular kind of instability that occurs in geophysical flows. Eventually, the perturbations dynamics in turbulent flows is used to analyse the mixing process between water-vapour in clouds and clear air in the surroundings, in the presence of a meteorological inversion.
Localizzazioni e accesso	http://memoria.depositolegale.it/*/http://hdl.handle.net/11583/2613156