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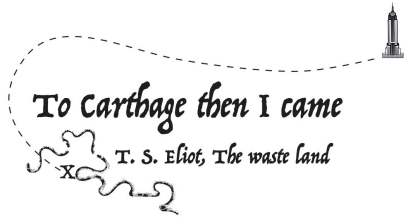

Monday 16th May
10:30 (Tunis time – GMT+1, UTC+1)

Opening Lecture
Stability of the Prandtl System and the Zero Viscosity Limit

The Prandtl system describes the flow of a viscous fluid close to the boundary. It was first derived by Prandtl in 1904. Since then, it had many applications in physics and mathematics. It particular it is a main model in the study of flying objects and the design of airplanes.
The model has a stationary version and a time evolution version. Both of therm are very physical and both of them are mathematically challenging:

A/ The well posedness of the system requires a monotonicity condition or a very high regularity.
B/ The stability of the model is still not well understood: The derivation of the model by studying the zero viscosity limit require a Gevrey regularity.