Mathematisches Oberseminar *PDG und Spektraltheorie* (WiSe 2015/16).

Date: 17.12.2015.
Time and place: 14:15 in B 134.

Speaker: Tomasz Cieślak (IMPAN Warsaw).
Titel: *Spirals of vorticity, a measure theory point of view.*
Abstract:
In my talk I will treat a special type of vortex sheets, spirals of vorticity, as time-dependent Borel measures μ_t satisying a condition $\mu_t(B(0,r)) = C(t)r^\alpha$ for some $C(t), \alpha > 0$. It turns out that Prandtl spirals satisfy the above condition, I will also discuss physical arguments suggesting that Kaden spirals should also satisfy it. Next I will show that such measures have locally finite kinetic energy, I will discuss the relation of such measures with the so-called Morrey measures. The talk will be based on the results in T. Cieslak, M.Szumanska JFA 2014, G. Jamroz CRAS 2015.

Thomas Østergaard Sørensen