## Šárka Nečasová Institute of Mathematics, Czech Academy of Sciences

Titles:

## **1.** Cherif and his weighted spaces

It is possible to live without weighted spaces?

## 2. On the problem of the compressible fluid on the domain with rough boundary and the case with slip boundary conditions of friction type

We study a problem of the compressible fluid on the domains with rough boundary. We define on the rough boundary the slip boundary conditions and on the smooth part of the boundary non-slip boundary condition. we show that if the roughness is going to zero that in the limit we get the no-slip boundary condition. Further, we consider the compressible flow with slip boundary conditions of friction type and we show the existence of weak solutions to this model. It is a joint work with K. Bhandari, M. Gahn, M. Neuss - Radu, M. Rodriguez-Bellido, J. Scherz, J. Ogorzaly.