1129-35-129 **Agnieszka Kalamajska*** (a.kalamajska@mimuw.edu.pl), Institute of Mathematics, University of Warsaw, ul. Krakowskie Przedmiescie 26/28, PL 00-927 Warsaw, Poland. *Trace and extension theorems dealing with weighted Orlicz-Sobolev and weighted Orlicz-Slobodetskii spaces and applications to nonlinear PDEs.*

We plan to discuss trace embedding and trace extension theorems between weighted Orlicz-Sobolev spaces of functions defined on domain $\Omega \subseteq \mathbf{R}^n$ and weighted Orlicz-Slobodetski spaces of functions defined on the boundary of Ω. We will consider weights which have the form $\rho(x) = \tau(dist(x, \partial\Omega))$ for weighted Orlicz-Sobolev spaces and weights having the form $\omega(x, y) = |x - y|^{2-n}\tau(|x - y|)$, for weighted Orlicz- Slobodetski spaces, within certain class of admissible functions $\tau(\cdot)$. This gives the new tool to deal with elliptic problems like:

$$\begin{cases} -\mathrm{div}\,(\rho(x)B(\nabla u(x))) = f & \text{in} \quad \Omega \\ u = g & \text{in} \quad \partial\Omega. \end{cases} \tag{1}$$

with inhomogeneous boundary data $g(\cdot)$, where $B(\cdot) : \mathbf{R}^n \to \mathbf{R}$, provided in the weighted Orlicz-Sobolev setting.

Results will be based on series of works obtained together with Raj Narayan Dhara and Miroslav Krbec. (Received March 10, 2017)