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## DK Seminar

November 25, 2015, 14:15 - 15:45  
Vienna University of Technology,  
Freihaus, green area, 4th floor, 101C

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### **A modified Poisson-Nernst-Planck model for ion transport**

Ion transport can be modelled using the Poisson-Nernst-Planck (PNP) equations. In order to account for size exclusion effects in narrow ion channels, the PNP model can be modified leading to a cross-diffusion system. In this talk, the modified PNP model and some results from literature will be presented. Furthermore, it will be discussed how an entropy method can be applied to prove the global-in-time existence of weak solutions to the model.