

# **Seminář odd. 26**

## **Tenkých vrstev a nanostruktur**

*Fyzikální ústav AVČR, Cukrovarnická 10, Praha 6*

*datum: 9. 4. 2013 úterý*

*čas: 10:00*

*mítnost: knihovna, budova A, 1.p.*

**TÉMA**

### **Blind Deconvolution in Image Processing**

**Ing. Filip Šroubek, Ph.D.**

Ústav teorie informace a automatizace AV ČR, v.v.i.

I will address the problem of estimating a convolution kernel from degraded measurements and removal of the degradation using state-of-the-art algorithms. This blind deconvolution problem is ill-posed and conclusions will be drawn that additional prior information is absolutely essential for reaching stability. I then provide details on different strategies that secure the aforementioned prior information targeting primarily applications in image processing. In many practical situations the convolution kernel is space-variant, which renders the problem even more challenging. I will briefly survey approximation techniques of the space-variant degradation operator and show results on real data.

odborný garant: *Ing. Pavel Jelínek, Ph.D.*