



MICHAEL LENTMAIER

From Sweden to France



Project: **Spatially coupled LDPC codes for wireless communication channels**

Research topic: **Informatics**

Swedish Institution: **Lund University**

French Institution: **University of Cergy Pontoise**

Dates of mobility: **08/09/2014 to 12/09/2014**

Program: **SFVE-A (ex-FRÖ)**



PRESENTATION

[Michael Lentmaier](#) is Associate Professor at the [Department of Electrical and Information Technology](#) at Lund University ([LU](#)). He defended his PhD in Telecommunications Theory at LU in 2003. His research interests include design and analysis of coding systems, graph based iterative algorithms and Bayesian methods applied to decoding, detection and estimation in communication systems.

ACTIVITIES IN FRANCE

The aim of Lentmaier's mobility was to deepen the existing collaboration with Prof. [Iryna Andriyanova](#) from the Information Processing and System Research Lab ([ETIS](#)) and the [Computer Sciences Department](#) at the School of Engineering ([ENSEA](#)) and the [University of Cergy Pontoise](#) and the French National Centre of Scientific Research ([CNRS](#)). Researchers from LU and Technical University of Dresden ([TU Dresden](#)) are involved. They jointly investigated the performance of spatially coupled LDPC codes on wireless communication channels and they are both involved in the [NEWCOM FP7 Network of Excellence on Wireless Communications](#). A [joint publication](#) on the block fading channel with applications in i.a. wireless communication systems and block erasure channels was discussed, and another visit to France by Lentmaier's PhD student, [Najeeb ul Hassan](#), was also planned.

Lenmaier also held a seminar entitled "Braided Convolutional Codes – A Class of Spatially Coupled Turbo-Like Codes". A favourable outcome of the visit was the development of a systematic method for constructing codes with a desired diversity, on which they also envisaged a publication.