Analysis Seminar Stockholm University 2017-02-08

*Speaker:* **Ragnar Sigurdsson**, University of Iceland.

*Title:* **Growth estimates of entire functions along sets of complex line in $\mathbb{C}^n$ and Paley-Wiener theorems.**

*Abstract:* In the lecture we look at a function defined in on a union of lines in $\mathbb{C}^n$ which is of exponential type, or even of finite type with respect to any growth order, and show that under a certain regularity condition at the origin it extends to an entire function on $\mathbb{C}^n$ with growth estimates. These growth estimates are given in terms of *Siciak's weighted homogeneous extremal functions*. As an application we get variants of Paley-Wiener theorems for analytic functionals and distributions.