

26.04.2021

**Monday's Nonstandard Seminar 30**

**15:00**

Author: Benny Avelin (Uppsala University)

Title: **Approximation of BV functions using neural networks**

Abstract: In this talk, I will focus on a recent result together with Vesa Julin, concerning the approximation of functions of Bounded Variation (BV) using special neural networks on the unit circle. I will present the motivation for studying these special networks, their properties, and hopefully some proofs. Specifically the results we will cover: the closure of the class of neural networks in  $L^2$ , a uniform approximation result, and a localization result.