

Nielsen's beta-function and some infinitely divisible distributions

01.17**Henrik Laurberg Pedersen***(Department of Mathematical Sciences, University of Copenhagen, Denmark)***Time:** Friday 26.07., 10:30 - 11:00, Room AM

Abstract: Nielsen's beta-function is a classical special function related to Euler's gamma function. It is by definition a completely monotonic function. We obtain that it is a so-called logarithmically completely monotonic function, and determine the corresponding family of infinitely divisible distributions. This is based on the Steutel-Kristiansen theorem, relating generalized Stieltjes functions of positive order with logarithmically completely monotonic functions.

These results are related to Laplace transforms of positive, even and periodic functions. A method supplying us with a number of concrete examples of logarithmically completely monotonic functions is described.

The talk is based on joint work with Christian Berg (University of Copenhagen) and Stamatis Koumandos (University of Cyprus).