

# Einladung zum ZeSOB Kolloquium

Am Montag, 19. Juli 2021, um 16:30 s.t. spricht Herr

**JProf. Dr. Gero Junike**

(Institut für Mathematik, Uni Oldenburg)

über

## How to choose the truncation interval for the COS method

The COS method is used to efficiently retrieve the probability density function of a random variable from its characteristic function and to compute certain integrals appearing in mathematical finance. The main idea of the COS method is to approximate a density with infinite support on a finite interval  $[a,b]$  and to approximate the truncated density by a cosine expansion. We provide a new framework to prove the convergence of the COS method, which enables us to obtain an explicit formula for the minimal length of the truncation interval  $[a,b]$ , given some maximal error tolerance between the integral and its approximation by the COS method.

Der Vortrag findet online in BBB unter

<https://meeting.uol.de/b/pet-ihv-p2z-min>

statt am Montag, 19. Juli, um 16:30 Uhr s.t.

**Alle Interessierten sind herzlich willkommen!**

(Einladungsvorschlag von Prof. Dr. Peter Ruckdeschel)