



# SEMINAR

APPLIED MATHEMATICS AND MECHANICS

FS965

15 October 2021

A DCAMM seminar No. 749 will be presented by

**Guillermo E. Morales Espejel**  
**SKF Principal Scientist**  
**AE Houten, The Netherlands**

The title of the lecture is

## **Micropitting in Rolling/Sliding Surfaces**

### **Abstract:**

Micropitting is nowadays one of the most common failure modes in lubricated heavily loaded rolling/sliding surfaces, like rolling bearings and gears. Important industrial megatrends like increased power density and reduced power losses have increased the risk of this surface failure mode in tribological surfaces. Modelling of the micropitting phenomenon has many important challenges, since roughness, mixed lubrication and the simulation of millions of load cycles need to be considered in combined fatigue and wear process. The talk will focus on describing the main competitive mechanisms affecting micropitting and will describe in more detail the different elements needed to model this failure mode. It will end up with applications to rolling bearings and gears.

DATE:	<b>Friday, 29 October 2021</b>
TIME:	<b>9:30 – 10:15</b>
PLACE:	<b>Room 061B, Building 414</b> DTU, Technical University of Denmark

Danish pastry, coffee and tea will be served 15 minutes before the seminar starts.

All interested persons are invited.

Niels Leergaard Pedersen

**DANISH CENTER FOR APPLIED MATHEMATICS AND MECHANICS**

**• TECHNICAL UNIVERSITY OF DENMARK • AALBORG UNIVERSITY**  
**• AARHUS UNIVERSITY • UNIVERSITY OF SOUTHERN DENMARK**