



Einladung

zur öffentlichen Antrittsvorlesung

von Frau Prof. Dr. Bernadette Hahn-Rigaud

Frau Prof. Dr. Bernadette Hahn-Rigaud hält am

Montag, 17. Juli 2023, um 16:15 Uhr,

im Fakultätssaal 8.122, Pfaffenwaldring 57, Stuttgart-Vaihingen

ihre öffentliche Antrittsvorlesung zum Thema:

„Dynamic inverse problems“

Abstract:

Inverse problems are concerned with determining the cause of an observation, thus arising in many scientific and technical applications. Classic examples constitute imaging techniques such as computerized tomography, which provide non-invasive information about the inside of a patient or workpiece.

Solving inverse problems is well understood if the object under investigation is stationary during the measurement process. However, this assumption is violated in many medical and industrial applications, e.g. due to patient and organ motion or while imaging engines at working stage. In this case, standard reconstruction techniques introduce motion artefacts which can impede a reliable diagnostics.

Consequently, suitable models and algorithms have to be developed in order to solve dynamic inverse problems. After a detailed introduction, I present two reconstruction approaches incorporating different types of motion information which are illustrated with examples from tomographic imaging.

Hierzu laden wir sehr herzlich ein.

gez. Prof. Dr. Ingo Steinwart (Dekan)

