

Departement Physik, Universität Basel

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# Classical and Quantum Nonlinear Dynamics, Frühjahrssemester 2025

## Course organization

Lecture: Tuesday, 8:15 - 10:00 Uhr, Seminarraum 4.1

Begin: February 18

Exercise class: Friday 13:15 - 15:00 Uhr, Seminarraum 4.1

Begin: February 21

ECTS credits and grade

To receive the **4 ECTS credits** for lecture and exercise classes and the grade “4”, you have to obtain 50% of the points in the homework problems. In addition there will be an oral exam that allows you to improve the grade.

Tutors:

Julian Arnold, office 4.10

Dr. Niels Lörch, office 4.10

Tobias Kehrer, office 4.48

Tobias Nadolny, office 4.48

The exercise sheets are available in the lecture and on the webpage

**link to course page.**

Literature:

S.H. Strogatz, *Nonlinear dynamics and chaos with applications to physics, biology, chemistry and engineering. 3<sup>rd</sup> edition 2024,*

CRC Press.

**PHY NA 296 Ed. 3**

A. Eichler and O. Zilberberg, *Classical and Quantum Parametric Phenomena,*

Oxford University Press.

**PHY NA 297**

A. Pikovsky, M. Rosenblum, and J. Kurths, *Synchronization: A universal concept in nonlinear sciences,*

Cambridge University Press.

**PHY TH 497 und online in the UniBib**