



dutch institute
of systems
and control

Program DISC Fall Course on Numerics and Control

[BCN Eindhoven](#)

November 23-25, 2021

Tuesday, November 23, 2021

| | |
|---------------|---|
| 10.00 | <i>Welcome and Introduction</i> |
| 10.00 – 12.00 | Introduction to port-Hamiltonian systems (pHs) |
| 12.00 – 13.00 | <i>Lunch</i> |
| 13:00 – 15.00 | Boundary control of PDEs in one space dimension |
| 15.00 – 15.30 | <i>Break</i> |
| 15.30 – 17.30 | Lab-1 in Matlab |
| 18.30 – 20.30 | <i>Fall Course dinner</i> |

Wednesday, November 24, 2021

| | |
|---------------|---|
| 09.00 – 10.30 | Boundary Control of PDEs in higher space dimension |
| 10.30 – 11.00 | <i>Break</i> |
| 11.00 – 12.00 | Partitioned Finite Element Method in higher space dimension |
| 12:00 – 13.30 | <i>Lunch</i> |
| 13.30 – 15.00 | Lab-2 in Python (1) |
| 15.00 – 15.30 | <i>Break</i> |
| 15.30 – 16.30 | Lab-2 in Python (2) |

Thursday, November 25, 2021

| | |
|---------------|---|
| 09.00 – 10.30 | Discrete formulation of conservation laws |
| 10.30 – 11.00 | <i>Break</i> |
| 11.00 – 13.00 | Exterior calculus representation of pHs and geometric finite elements |
| 13:00 – 14.00 | <i>Lunch</i> |
| 14.00 – 16.00 | Discrete time pHs for simulation and control |
| 16.00 | <i>Closure and farewell drinks</i> |