



**Modelling, analysis and control of counterflow heat exchangers**

*Dr. Denis Dochain/Catholic University of Louvain*

*Wednesday, October 18, 2023, 2:30pm*

*Bioscience Complex, Room 1102*

Heat exchangers are one of the most largely used devices in industry. Almost all the produced or collected thermal energy passes at least once through a heat exchanger. The objective of this presentation is to give a survey of the results obtained during the PhD thesis of Jacques Kadima. The dynamics of counterflow heat exchangers are described by a set of partial differential equations for both fluids involved in the heat exchange. The presentation will provide identification results for the heat exchanger model, analysis results (including a thermodynamic perspective) and control design results.