PCDF 2024 aims to bring together various disciplines – including physics, information theory, applied mathematics, and data science – to explore a central problem of developmental biology: how cells integrate external signals and make fate decisions. Our focus is on bridging the gap between the biological phenomena of interest and their theoretical, modeling, and rigorous data analysis treatments. We have taken care to balance the theoretical and experimental contributions to the conference. The list of topics includes, among others:

- Pattern formation in organoids and in developing organisms.
- Gene regulatory networks that underlie cell-fate decisions.
- Interaction between cell fate, gene expression, and chromatin dynamics during early development.
- Dynamics of morphogen signalling.
- Mechanical signaling in cell fate decisions.
- Dynamical system, statistical physics, and information-theoretic frameworks to study cell fate decisions.

The conference will feature about 15 invited and 15 contributed talks that will be selected from the submitted abstracts. In addition, there will be two poster sessions, and ample opportunities for networking. This is a fantastic opportunity for PhD students and postdocs to present and discuss their work. We are also planning a number of social activities to promote informal interactions. We are looking forward to your participation!

Please submit your abstract for the poster sessions and the contributed talks here. Registration and abstract submission deadline is April 22, 2024.

Mon, May 13, 2024 12:00pm - Thu, May 16, 2024 02:00pm
Raiffeisen Lecture Hall