PRE-CONFERENCE WORKSHOP

WEDNESDAY 17 SEPTEMBER 2025

09.00-12.30   **Advanced computational data analysis: from theory to practice**

Workshop organisers: Sarah Bonte, Katrien Quintelier, Serena Di Cecilia

Level: Advanced, Max. 30 places.

More and more, computational analysis starts to play a crucial role in flow cytometry, especially with the increasing complexity and volume of data. Advanced algorithms enable accurate identification of cell populations, even rare ones, with improved reproducibility. Machine learning techniques help uncover patterns and correlations not visible through conventional methods. Computational pipelines also automate data cleaning, compensation, and batch effect correction steps. This increases throughput and reduces human error. In this workshop we will guide you through these concepts and algorithms, raising your understanding and curiosity to explore this field. Next to the theoretical part, we will show you as well how you can do all of this in FlowJo, a software widely used for cytometry data analysis

09:00-10:30	Overview of the data analysis workflow: from data preprocessing to dimensionality reduction and clustering	Katrien Quintelier, Sarah Bonte
10:30-11:00	FlowJo hands-on: compensation, transformation, quality control	Serena Di Cecilia
11:00-11:30	*Coffee break*	
11:30-12:30	FlowJo hands-on: dimensionality reduction and clustering, data exploration	Serena Di Cecilia

Lunch on your own

14.00   Start ESCCA Conference