

From Images to Knowledge with ImageJ & Friends

virtual conference

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Stephan Preibisch, Stephan Saalfeld, Anna Kreshuk,
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Conferences



Regression plane: analysing continuous cellular processes with machine learning

Tutors: Ábel Szkalicity (abel.szkalicity@helsinki.fi)
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Session 1: 2020-12-01 14:00 UTC – 2020-12-01 18:00 UTC

Session 2: 2020-12-02 11:00 UTC – 2020-12-02 15:00 UTC

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Title: Regression plane: analysing continuous cellular processes with machine learning

Abstract: We present the Regression Plane module of Advanced Cell Classifier, a tool for class-free phenotypic supervised machine learning in microscopy image analysis. Discrete supervised machine learning is regularly used in image-based experiments to quantify phenomena that are not directly measurable by predefined methods. Regression plane enables this analysis in a class-free, continuous manner to facilitate the discovery of subtle phenotypic differences.

A rough outline how the tutorial will be organized including technical requirements: After general introduction and live demonstration, the participants will get hands-on experience on the tool in a playful setup. The tool is freely available for download at www.cellclassifier.org for all common operating systems (administrator rights are necessary for the installation of Matlab runtimes, alternatively an installed version of Matlab itself is sufficient), the dataset will be available on a public link. Finally, participants may explore their own data, or ask for advice on how to use the tool in their own experiments.