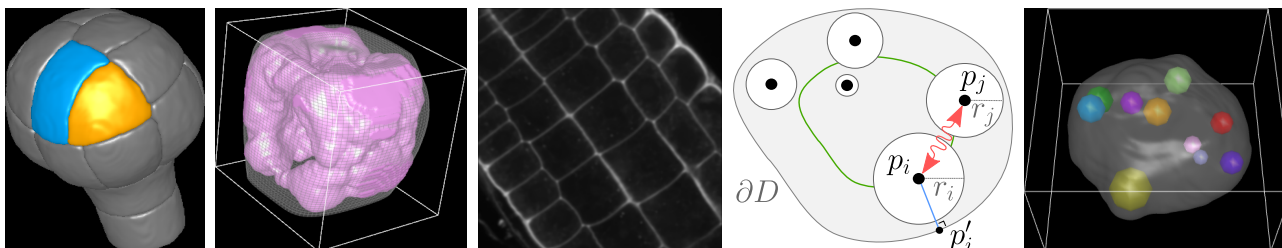


Post-doc image analysis of cell cycle dynamics (2 years)

Keywords. Bioimage informatics ; data analysis ; machine learning ; plant cell division.



Job description. You will develop new algorithmic pipelines combining image processing, image analysis, and statistical learning (including deep learning) to reconstruct and exploit a 3D+time atlas of subcellular dynamics in cycling plant cells. You will provide new insights into the mechanisms controlling cell division orientation in plants and will contribute to the computational modelling of these processes. You will apply the developed methods to 3D confocal images of plant root cells collected in various genetic and experimental backgrounds within the frame of a collaborative project with David Bouchez (INRAE Versailles) and Marie-Cécile Caillaud (ENS Lyon).

Salary before taxes between 2 604,47€ and 3 040,97€; health insurance; paid leaves; contribution to public transportation costs; telecommuting; social activities. Starting date Sep 2023 or later.

Working environment. The [Modelling and Digital Imaging team](#) at [Institut Jean-Pierre Bourgin](#) in INRAE Versailles conducts original researches in image processing, applied mathematics and computational modelling to decipher plant function, development, and morphogenesis. In addition to this human-sized, friendly working environment, you will enjoy the green, unique surroundings of the Palace of Versailles gardens in which our research center is located, within less than 45 min from Paris. The project involves missions to Lyon and inter-disciplinary meetings with biologists.

Expected skills. You have a PhD or equivalent in applied mathematics, computer science, or computational biology with a strong background and experience in digital image processing and analysis. You have a solid experience in programming with an object-oriented language such as C++ or Java. You are curious and appreciate to work within a strongly inter-disciplinary environment.

Applications. Please send a resume, a motivation letter (including a brief overview of past research experience), and 2-3 references to philippe.andrey@inrae.fr.

References.

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