

The ERC AdG "Nonlinear evolutions and iterative algorithms: optimization and control" led by Massimo Fornasier was recently approved. It will start in January 2026 and will last for 5 years.

The goal of the project is to analyze iterative algorithms arising from time discretizations of nonlinear evolutions (of various kinds such as multiagent systems, quasi-static evolutions, games) and consider their training as appropriate (mean-field) control problems. A special focus is given to the optimization of nonconvex problems.

The mathematical techniques range from model-application-numerical aspects (from machine learning) to challenging problems of mathematical analysis.

Young researchers in mathematical analysis, optimal control, numerical analysis, machine learning interested in a PostDoc (2-5 years) on such topics may want to demonstrate their interest by directly contacting Massimo Fornasier <massimo.fornasier@ma.tum.de>.