TurboReg and Other ImageJ Plugins at the Biomedical Imaging Group of EPFL

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Abstract

We briefly present a non-exhaustive digest of some of the ImageJ plugins that were developed through the years by many authors at the Biomedical Imaging Group. While these plugins rely on advanced mathematical and algorithmic tools, we believe their user interface to be friendly enough that even non-experts can feel comfortable using them. We then focus on the specific plugin named TurboReg, which has been well received by many users. We look at it from a historical perspective, from its inception to its current state, discussing issues like development, coding, testing, deployment, documentation, update, extension, and user support. We draw a few lessons gained during its life cycle

Biography

Philippe Thévenaz was born in 1962 in Lausanne, Switzerland. He graduated in 1986 from the École polytechnique fédérale de Lausanne (EPFL), Switzerland, with a diploma in microengineering. He joined the Institute of Microtechnology (IMT) of the University of Neuchâtel, Switzerland, where he obtained his Ph.D. in 1993. He then worked as a Visiting Fellow with the Biomedical Engineering and Instrumentation Program, National Institutes of Health (NIH), Bethesda MD, USA, where he developed research interests that include splines and multiresolution signal representations, geometric image transformations, and biomedical image registration. Since 1998, he is with the EPFL as senior researcher.