GROOPS: An open-source software package for GNSS processing and gravity field recovery

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The Gravity Recovery Object Oriented Programming System (GROOPS) is a software package written in C++ that enables the user to perform core geodetic tasks. The software features gravity field recovery from satellite and terrestrial data, the determination of low-earth-orbiting satellite orbits from global navigation satellite system (GNSS) measurements, and the computation of GNSS constellations and ground station networks. For an easy and intuitive setup of complex workflows, GROOPS contains a graphical user interface to create and edit configuration files. The source code of GROOPS is released under the GPL v3 license and is available on GitHub (https://github.com/groops-devs/groops) together with documentation, a cookbook with guided examples, and installation instructions for different platforms. In this contribution we give a software overview and present results of different applications and data sets computed with GROOPS.