# What is good scientific practice for research software?

Software has become an essential component in basically every part of the research cycle. Still, there are no comprehensive guidelines how core principles of good scientific practice like transparency and reproducibility can and should be applied to research software. Further open questions are how to guarantee high quality of such software, how current and future researchers need to be trained and incentivized to generate sustainable software. To ensure the frictionless reuse and long term availability of software dedicated infrastructure for research software needs to be established. At the same time knowledge about open/libre software licenses needs to be disseminated. These and numerous other issues were so far only partially and inconsistently addressed by German universities and funding/research institutions.

The Alliance of Science Organisations which consists of all large German research organisations (DFG, Fraunhofer Society, Helmholtz Association, Leibniz Association, Max Planck Society) and the universities has launched the ad-hoc working group "Research Software" as part of its initiative "Digital Information" to propose solutions for these issues. This working group aims to address the general questions regarding research software and to compile a set of guidelines and recommendations for the German and international research community.

In this talk those questions and their potential solutions will be presented and discussed.