## MagLab-OSF Integration Tools

The MAGLAB is developing software tools to help users easily manage MAGLAB projects and experimental data on the OSF platform. The MAGLAB OSF Project Tool allows users to create OSF projects linked to their MAGLAB project on the User Portal and the official magnet time calendar. The tool can automatically pre-populate the OSF project description and project wiki with the User Portal's project metadata. Any data recorded during the user experiment can be uploaded to the corresponding OSF project, either automatically or manually, via the MAGLAB OSF File Uploader tool. The tool pre-populates OSF electronic lab book with the file metadata to help users track and share the experimental data using OSF file-sharing capabilities. The tool can also extract and visualize the file metadata for the files in FAIR-ready formats, including Hierarchical Data Format (HDF) and Technical Data Management (TDM/TDMS) format.