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The Upgraded International Database for Absolute Gravity Measurements (AGrav)

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Since 2007 the International Database for Absolute Gravity Measurements “AGrav” is jointly operated by BGI and BKG. By a new and responsive high level web application framework based on Python and built on top of Pyramid the outdated user interface is now replaced. New functionality like interactive time series plots or a report generator was added. The interactive map showing station locations was completely revised based on open source and is comprising now clustering and the classification of stations. The database backend itself is migrated to PostgreSQL for better support of the application framework and long-term availability. As comparisons of absolute gravimeters (AG) become essential to realize a precise and uniform gravity standard, the database was extended to document all results on international and regional level. By this it will be possible in the future to link different AGs and to trace their equivalence back to the key comparisons under the auspices of International Committee for Weights and Measures (CIPM) as the best metrological realization of the absolute gravity standard. In this way the new AGrav database accommodates the demands of the upcoming global absolute gravity reference system. Finally, Digital Object Identifier (DOI) assigned by BGI to all contributors allows referencing of gravity surveys and will increases the visibility of the resulting data.