



# Hard- and Software Support for Bioinformatics

support@gwdg.de 0551/201-1523  
<https://www.gwdg.de/support>

Please note: \* = special registration required \*\* = special HPC registration required

## Hardware Resources

### compute server in dialog mode:

gwdg100.gwdg.de (39 cores, 950 GB RAM, Linux server)\*\*

[interactive batch queues of HPC cluster](#) (Linux server)\*\*

GWD-WinTSBio.top.gwdg.de (32 cores, 128 GB RAM, Windows server)\*

### compute server in batch mode:

batch queues of [HPC cluster](#) (Linux server, ~450 compute nodes, ~10.000 cores, partly also with GPUs, 16-64 cores per node, 64-2024 GB RAM per node, parallel computing is possible with MPI)\*\*

[virtual compute server](#)

[Storage](#) (HDD, SSD, Tape; special network devices for institutes and projects)

[Archive & Backup](#) (for big data amounts and mobile devices too)

## Installed Software

### application programs and databases of bioinformatics:

about 150 programs listed on <http://gwdg100.gwdg.de>

[Galaxy](#) web server

[MASCOT](#) web server\*

locally mirrored **BLAST** + **FASTA** data banks (e.g. NR + NT) [others possible by request]

`/usr/product/bioinfo/DATABASES` (on HPC cluster and gwdg100 available only)

### application programs of general statistics, mathematics, and physical chemistry:

[SAS/JMP](#), [SPSS/AMOS](#)\*, [Statistica](#)\*, [Stata](#)\*, [R](#)\*, [R-Studio](#)\*, [R-Studio-Desktop](#)\*, [MatLab](#)\*\* ,  
[Maple](#)\*\* , [Mathematica](#)\*\* , [GAUSSIAN09](#)\*\* , [SHELX](#)\*\* , [PHENIX](#)\*\* , [TURBOMOLE](#)\*\*

preconfigured data base installations: z.B. [MySQL](#), [PostgreSQL](#) (incl. [PostGIS](#) + [PostBIS](#))

preconfigured [web servers](#)

### tools for software development

[GitLab](#) <https://gitlab.gwdg.de> (version management and test environment similar to GitHub)

[Jupyter](#) <https://jupyter.gwdg.de> (programming environment for Python, Julia, Haskell, and R)

Jupyter on HPC cluster: <https://jupyter-hpc.gwdg.de/> (programming environment for Python and R)\*

### tools for collaborative work (data storage only on GWDG-owned server)

[project management service](#)\*

[MS SharePoint](#) (get your own site collection, courses and individual advice)

[ownCloud](#) <https://owncloud.gwdg.de> (data sharing software like Dropbox)

[Cryptshare](#) <https://cryptshare.mpg.de> (encrypted data exchange) [for MPG members only]

[ShareLaTeX](#) <https://sharelatex.gwdg.de> (collaborative version of LaTeX)

[Rocket.Chat](#) <https://chat.gwdg.de> (chat software)

## Consulting and Support

**use of HPC cluster** (individual advice and courses)

contact: [hpc@gwdg.de](mailto:hpc@gwdg.de)

**scientific work with Linux, macOS, Windows** (individual advice and courses)

**consulting for scientific data management**

(documentation, data handling, long-term archiving, PIDs etc.)

**advice on the purchase and hosting of hardware** (server, storage, network ...)

## Free, low-cost or discounted Licenses

[SAS/JMP](#) (for students free of charge), [SPSS/AMOS](#) (very cheap), [Statistica](#) (free of charge),

[XWin32](#) (free of charge), [Geneious Prime](#) (discounted licenses + big license pool)

### Please note:

- All services are "invoiced" to the respective institute only in so called "Arbeitseinheiten" (AE). However, these AEs only serve to compare the quantity of service requested by our two large customer groups, MPG and University of Göttingen, and do not represent a financial burden for the respective MPIs. **All services mentioned here are basic services and therefore free of charge.** Only requests of extremely large hardware resources are charged in Euro (e.g. >100 TB HDD storage).
- If not indicated differently, a GWDG account is required to use these services. MPI accounts can also be used, if the respective institute has integrated its accounts into our Identity Management.
- Some systems are only accessible from GÖNET. *Outside* of GÖNET a VPN connection has to be established **before** the connection can be established.

**If no special e-mail address is given**, please contact the GWDG service hotline if you have any further questions:

<https://www.gwdg.de/support> or [support@gwdg.de](mailto:support@gwdg.de) or 0551/201-1523