



GUROBI 13.0

# Where Speed Meets Innovation

Get more solving power with MIP and MINLP speed improvements, PDHG with GPU acceleration, local nonlinear optimization, and Kubernetes autoscaling.

OUR LATEST RELEASE

# Gurobi 13.0

Gurobi 13.0 delivers even more performance enhancements, with new ways to solve—including our Primal-Dual Hybrid Gradient (PDHG) implementation with support for CPUs and GPUs,\* designed to tackle extremely large LPs quickly.

For continuous nonlinear optimization problems, a new nonlinear barrier method for computing locally optimal solutions is now supported, offering significant speed-ups for many real-world applications.\*\*

## Performance Improvements

As always, Gurobi continues to push the boundaries of solver speed and efficiency. Initial benchmarks show that Gurobi 13.0 users can expect notable speed-ups compared to version 12.0, particularly for MIP and MINLP models.

Algorithm	Speed-Up
MIP (> 100s)	15.9%
MINLP (> 1s)	2.5x

In addition to these performance enhancements, Gurobi 13.0 introduces enhanced tools for heuristics, callbacks, solution pools, and Kubernetes autoscaling.

**\*Beta feature:** These features are not yet intended for production use. Support is provided on a best-effort basis.

**\*\*Preview feature:** These features are fully tested and supported, but may change significantly (including breaking changes in API, behavior or packaging) in future technical or major releases.

## Gurobi Optimizer

- **Faster Core Solver:** Experience on average ~16% faster solves on difficult MIP models and over 2X faster on non-trivial MINLPs.
- **PDHG Implementation:** Solve giant LPs faster, with CPU and GPU support available.
- **New Nonlinear Barrier Method:** Get locally optimal solutions for nonlinear problems in even less time.
- **Improved Heuristics:** Speed up decision making with enhancements to NoRel (now with variable hints and new stopping controls) that can help you find better solutions, faster.
- **Smarter Tools:** Leverage new nonlinear functions, callback improvements, solution pool attributes, and multi-objective reporting.

## Gurobi Cluster Manager and Compute Server

- **Autoscaling of Compute Server Clusters:** Automatically scale Gurobi Compute Server deployments on Kubernetes based on job queue metrics and node utilization.
- **Accessibility Improvements:** Experience a more user-friendly, accessible web interface with the Cluster Manager's alignment to WCAG 2.1 AA standards.
- **Security Improvements:** Work securely and confidently. Compute Server and Cluster Manager now support a TLS 1.3-only cipher policy, ensuring all communications meet the latest TLS standards.

# Experience the Power of Gurobi for Yourself

**Try Gurobi free for 30 days, including:**

- ✓ Free benchmarking services
- ✓ Free model tuning services
- ✓ Free access to our world-class technical guidance and support
- ✓ Gurobot, our AI-powered expert agent that can help you troubleshoot, explore modeling options, and optimize more efficiently



[gurobi.com/free-trial](https://www.gurobi.com/free-trial)

Academics: Visit [gurobi.com/academia](https://www.gurobi.com/academia) to apply for a free, full-featured Gurobi license.