

SQBM+™

Tackling optimization challenges
through quantum-inspired
computing

SQBM+™

A quantum-inspired approach towards
quantum computing advantage

SQBM+ is a quantum-inspired optimization solution based on the Simulated Bifurcation Machine (SBM) that is a combinatorial optimization solver utilizing the Simulated Bifurcation Algorithm (SB Algorithm) developed by Toshiba Corporation. We offer a lineup of optimization solvers according to the intended application, and have adopted a new SB Algorithm that greatly improves speed, accuracy, and scale.

Through collaborations and co-creation with expert partners, we are contributing to solutions to deeply complex problems in areas as diverse as finance, drug discovery, genetic engineering, logistics, and AI enhancement.

■ Key features



Large-scale

Handle up to 10 Million variables



Fast

10-100 times faster than competing
quantum-inspired solutions



Software-based

No special quantum hardware required



Classic infrastructure

Compatible with GPU and FPGA

Reference to the technology foundation

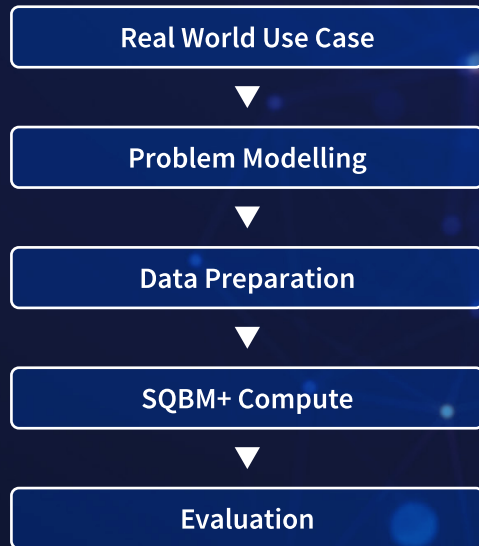
H. Goto et al., Science Advances, 2019

H. Goto et al., Science Advances, 2021

K. Tatsumura et al., Nature Electronics, 2021

How to use SQBM+

Process to tackle real-world challenges using SQBM+



Ideally suited for

QUBO : Quadratic Unconstrained Binary Optimization

PUBO : Polynomial Unconstrained Binary Optimization

QPLIB : Quadratic Programming with Linear Constraints

TSP : Traveling Salesman Problem

SHIFT : Shift Scheduling Problem

QAP : Quadratic Assignment Problem

Vertical solutions



Cloud SQBM+ compute options

SQBM+ for AWS

aws marketplace

SQBM+ for Azure

Azure Marketplace

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Service available in Canada, Denmark, France, Germany, Italy, Netherlands, Spain, UK, US, and Japan

Get in touch

Website



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Please contact us for more product performance data, technical whitepapers, or business inquiries.

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