

# Quantum Resources

The Quantum Resources page is where you can check the real-time status and detailed specifications of various quantum computers (QPUs) and simulators provided by QuREKA, as well as manage access permissions for each member.

The screenshot displays the QuREKA Quantum Resources page. The main content area shows a table of 6 quantum resources. The table has the following data:

Provider	Device Name	Status	Type	Qubits
Rigetti	Ankaa-3	ONLINE	GPU	82
IQM	Emerald	ONLINE	GPU	54
IonQ	Fortis-1	ONLINE	GPU	36
IQM	Garnet	ONLINE	GPU	20
SDT	Kreo-SC20	OFFLINE	GPU	20
SDT	QuboSIM-MIMIQ	ONLINE	SIMULATOR	100

The 'Resource Details' sidebar on the right shows the following information for the 'Kreo-SC20' resource:

- Resource Name: Kreo-SC20
- Resource ID: 7ef2a095-6ac1-119b-9473-e2a095741112
- Provider: SDT
- Status: OFFLINE
- Type: QPU
- Qubits: 20
- External Host: https://sd1.nc

## 1. Quantum Resources List

Key information for all currently available quantum resources is displayed in a list format:

- **Provider:** The supplier providing the quantum resources (e.g., Rigetti, IQM, IonQ, SDT, etc.).
- **Device Name:** The unique name of the specific device.
- **Status:** Indicates the current connection status of the resource.
  - **ONLINE:** The resource is in a normal state, allowing for job submission and execution.
  - **OFFLINE:** The resource is currently unavailable due to maintenance or other reasons.
- **Type:** Distinguishes the type of resource.
  - **QPU:** Actual quantum hardware that performs computations using physical quantum elements.
  - **SIMULATOR:** A virtual execution environment that uses high-performance computing (HPC) resources to mathematically calculate the results of quantum algorithms instead of using an actual quantum computer.
- **Qubits:** The total number of qubits available on the device.

- **Permission:** Shows the current access permission status set for the resource.

## 2. Resource Management

Administrators (Admins) can directly control the resource access permissions visible to workspace members. These can be configured via the More ( : ) icon on the right side of the list:

- **Admin Only:** Only users with administrator privileges can view the resource and submit jobs.
- **User Accessible:** General workspace members can also view the resource in the list and use it to execute their jobs.

## 3. Resource Details

By clicking on a specific resource, a details panel appears on the right where you can find more in-depth technical information:

- **Resource ID:** A unique ID used to identify the resource within the system.
- **Status:** Provides a detailed view of the resource's current operational status.
- **External Host:** Information regarding the external address where the resource is hosted.

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