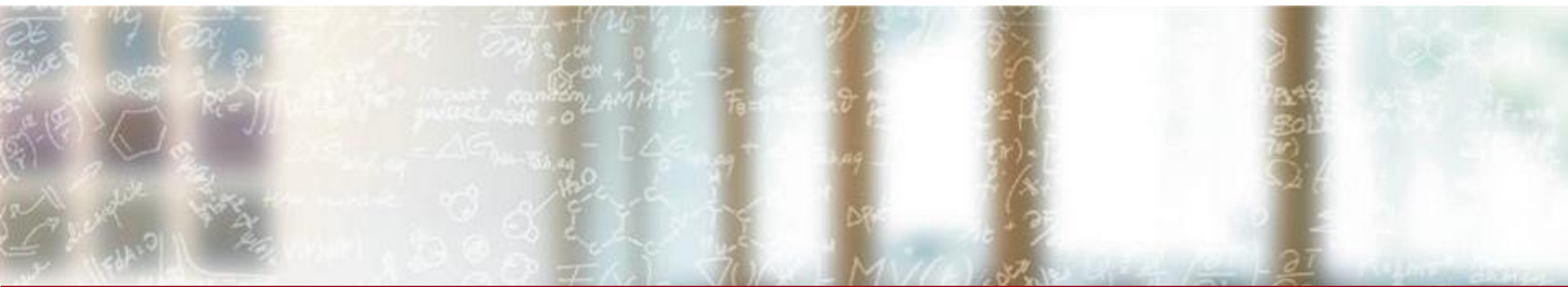




**CSCS**

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# Platform Dashboard & updates on FirecREST

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# Platform Dashboards

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# Platform Dashboards

- Web UI applications that enable graphical interaction between users and HPC resources
- Motivations
  - Starting point for new users in HPC
  - Better management of HPC workflows
  - Quick view of the status of the systems and backend service
- Platform Dashboards features
  - Systems Status
  - File Manager
  - Job Scheduler

# Platform Dashboards

- One Dashboard per Platform
  - HPC Platform: <https://my.hpcp.cscs.ch>
  - C&W Platform: <https://my.cwp.cscs.ch>
  - ML Platform: <https://my.mlp.cscs.ch>
- Work in Progress
  - Grafana dashboards integration in the Job View
  - Live data of the utilization of GPU, CPU, memory, etc.; per job and per node
- Demo time!

# FirecREST updates

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# FirecREST Updates

- FirecREST Version 2 available in all the platforms



Daint and Eiger

>>> <https://api.cscs.ch/hpc/firecrest/v2>



Bristen and Clariden

>>> <https://api.cscs.ch/ml/firecrest/v2>



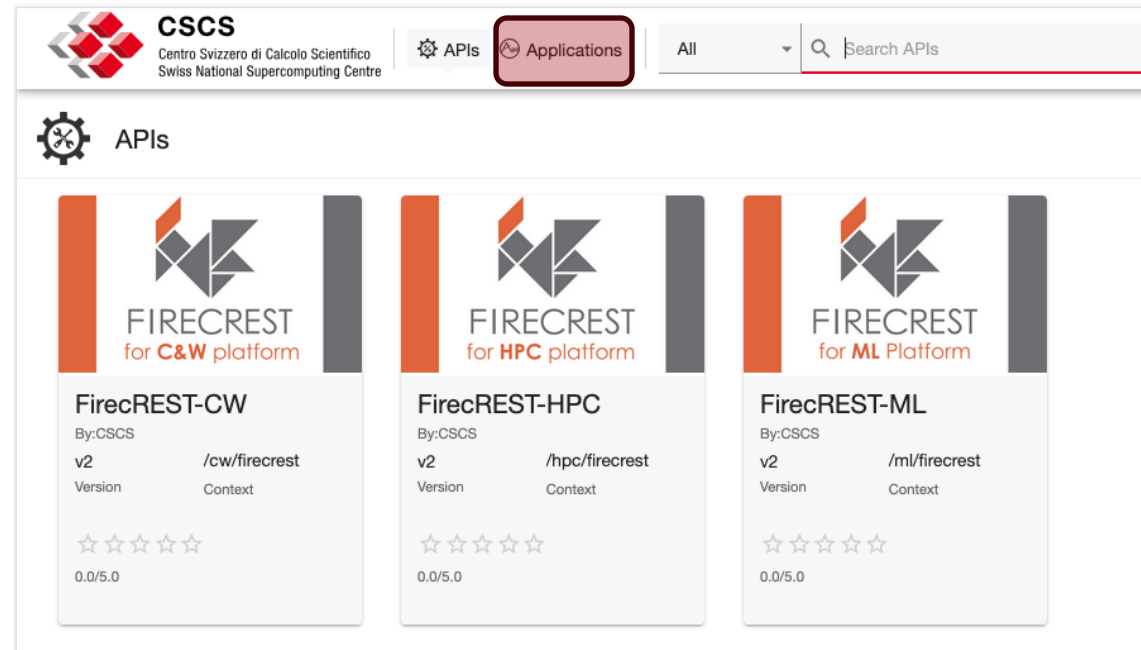
Santis

>>> <https://api.cscs.ch/cw/firecrest/v2>

# FirecREST Updates

- FirecREST client's management on Developer Portal

[developer.cscs.ch](https://developer.cscs.ch)



# FirecREST Updates

- Improvements of FirecREST version 2
  - Enables high-throughput regime
    - Improved command execution
    - Up to 200 requests per second with 500 clients at the same time
  - Improved API interface (compared with version 1)
    - Faster: use of Async web server
    - More reliable: due to the periodic check of the systems, scheduler, etc
    - Simpler: use of scheduler for Data Mover and Data Transfer (removed the Tasks API)

## Deprecation notice

- FirecREST Version 1 is deprecated, and will be removed by the End of 2025



# FirecREST CLI

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# FirecREST CLI

- Interact with a remote system without SSH and from your terminal!
  - Installing **pyFirecREST** (`pip install pyfirecrest`) provides integration with the CLI of FirecREST

```
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest systems
{
  {
    "name": "bristen",
    "ssh": {
      "host": "bristen.cscs.ch",
      "port": 22,
      "proxyHost": null,
      "proxyPort": null,
      "maxClients": 100,
      "timeout": {
        "connection": 5,
        "login": 5,
        "commandExecution": 5,
        "idleTimeout": 60,
        "keepAlive": 5
      }
    },
    "scheduler": {
      "type": "slurm",
      "version": "24.05.4",
      "apiUrl": null,
      "apiVersion": null,
      "timeout": 10
    },
    "servicesHealth": [
      {
        "serviceType": "scheduler",
        "lastChecked": "2025-08-28T15:56:47.373861Z",
        "latency": 0.5796048641204834,
        "healthy": true,
        "message": "[{'mode': 'primary', 'hostname': 'bristen-slurmctl', 'pinged': 'UP'}]"
      },
      {
        "serviceType": "ssh",
        "lastChecked": "2025-08-28T15:56:47.456864Z",
        "latency": 0.6620817184448242,
        "healthy": true,

```

```
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest mkdir /iopsstor/scratch/cscs/jdorsch/newdir --system clariden
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest ls /iopsstor/scratch/cscs/jdorsch/ --system clariden
{
  {
    "name": "newdir",
    "type": "d",
    "linkTarget": null,
    "user": "jdorsch",
    "group": "csstaff",
    "permissions": "rwxrwx---+",
    "lastModified": "2025-08-28T18:07:19",
    "size": "4096"
  }
}
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest submit --working-dir /iopsstor/scratch/cscs/jdorsch/newdir --system clariden ./sbatch-clariden.sh
{
  "jobId": 689161
}
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest job-metadata 689161 --system=clariden
{
  {
    "jobId": 689161,
    "script": "#!/bin/bash\n#\n## Copyright (c) 2019-2021, ETH Zurich. All rights reserved.\n#\n## Please, refer to the LICENSE file in the root director\nNoHome Slurm plugin\nif [ ! -e $HOME/.bashrc ]; then\n  echo \"enabled\" > nohome.txt\nfi\nnecho \"Sleeping 300s\"\nsleep 300s\nnecho \"Test finishes: `date`\"\n"
    "standardInput": "/dev/null",
    "standardOutput": "/iopsstor/scratch/cscs/jdorsch/newdir/slurm-689161.out",
    "standardError": "/iopsstor/scratch/cscs/jdorsch/newdir/slurm-689161.out"
  }
}
(.venv) jdorsch@westfalen ~/dev/alps-onboarding firecrest cancel 689161 --system clariden
```

# Documentation

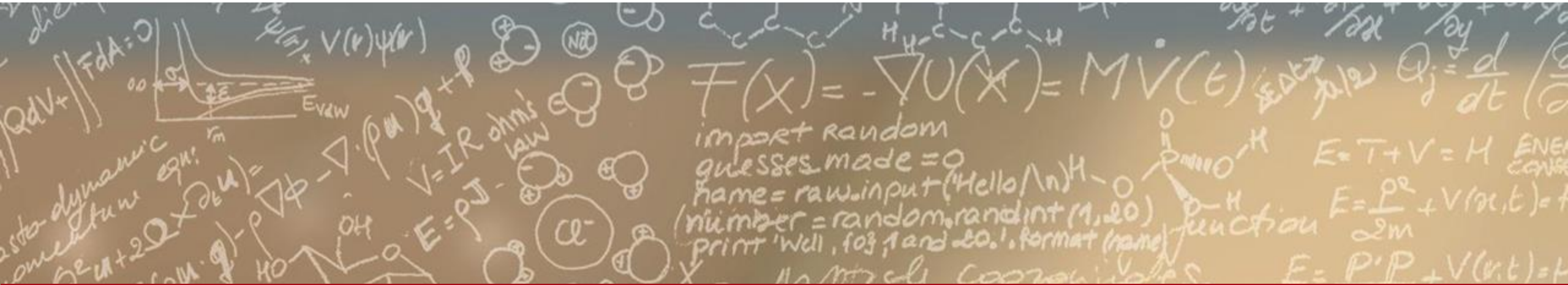
- FirecREST at CSCS: <https://docs.cscs.ch/services/firecrest>
- pyFirecREST and CLI: <https://pyfirecrest.readthedocs.io>
- FirecREST Docs: <https://eth-cscs.github.io/firecrest-v2>
- Platform Dashboards Docs (FirecREST UI): <https://eth-cscs.github.io/firecrest-ui/>



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**Thank you for your attention.**