

# **OpenStack Day CERN - "Accelerating Science with OpenStack"**

Monday, 27 May 2019 - Tuesday, 28 May 2019

CERN

## **Book of Abstracts**



# Contents

Registration . . . . .	1
Welcome/Opening . . . . .	1
OpenStack Foundation . . . . .	1
CERN - Overcoming the LHC Computing Challenges . . . . .	1
SKA - The Square Kilometre Array - Exploring the Universe with an ExaScale Telescope	1
NASA - Past, Present, and Future - A More Flexible Datacenter using Open Infrastructure	1
Wellcome Sanger Institute - Supporting DNA Sequencing at Scale with OpenStack . . .	1
JASMIN - Climate and Earth-system Science Data Analysis with OpenStack . . . . .	2
vGPUs with OpenStack - Accelerating Science . . . . .	2
How OpenStack enables Face Recognition within five minutes with GPUs and FPGAs . .	2
SWITCH - The Swiss Academic Community powered through OpenStack . . . . .	2
Secure IT framework for Personalised Health Data . . . . .	2
Closing . . . . .	2
Trading Flexibility for Performance: The HPC Story in OpenStack . . . . .	2
Integrating OpenStack and Kubernetes . . . . .	3
The Cookbook of Distributed Tracing for OpenStack . . . . .	3



11

## **Registration**

12

## **Welcome/Opening**

**Corresponding Author:** belmiro.moreira@cern.ch

13

## **OpenStack Foundation**

14

## **CERN - Overcoming the LHC Computing Challenges**

15

## **SKA - The Square Kilometre Array - Exploring the Universe with an ExaScale Telescope**

**Corresponding Author:** stig@stackhpc.com

16

## **NASA - Past, Present, and Future - A More Flexible Datacenter using Open Infrastructure**

17

## **Wellcome Sanger Institute - Supporting DNA Sequencing at Scale with OpenStack**

18

## **JASMIN - Climate and Earth-system Science Data Analysis with OpenStack**

19

## **vGPUs with OpenStack - Accelerating Science**

20

## **How OpenStack enables Face Recognition within five minutes with GPUs and FPGAs**

**Corresponding Author:** [erwan@erwan.com](mailto:erwan@erwan.com)

21

## **SWITCH - The Swiss Academic Community powered through OpenStack**

**Corresponding Authors:** [simon.leinen@switch.ch](mailto:simon.leinen@switch.ch), [jens-christian.fischer@switch.ch](mailto:jens-christian.fischer@switch.ch)

22

## **Secure IT framework for Personalised Health Data**

**Corresponding Author:** [jani.heikkinen@unibas.ch](mailto:jani.heikkinen@unibas.ch)

23

## **Closing**

**Corresponding Author:** [belmiro.moreira@cern.ch](mailto:belmiro.moreira@cern.ch)

26

## **Trading Flexibility for Performance: The HPC Story in OpenStack**

**Corresponding Author:** [stephenfinucane@gmail.com](mailto:stephenfinucane@gmail.com)

27

## **Integrating OpenStack and Kubernetes**

**Corresponding Authors:** [alberto.colla@garr.it](mailto:alberto.colla@garr.it), [zioproto@gmail.com](mailto:zioproto@gmail.com)

28

## **The Cookbook of Distributed Tracing for OpenStack**

**Corresponding Author:** [shakhat@gmail.com](mailto:shakhat@gmail.com)