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*Centro Nacional de Supercomputación*



# Programming Distributed Computing Platforms with COMPSs

Workflows & Distributed Computing Group

26-27/01/2021

Barcelona

# Final notes







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# Take-away messages

- Sequential programming approach (Java, Python, C++)
- Parallelization at task level
- Transparent data management and remote execution
- Easily integrate legacy applications (binaries, MPI)
- Can operate on different infrastructures:
  - Cluster
  - Grid
  - Cloud (Public/Private)
  - Containers
- Dislib for Machine learning on top of PyCOMPSs

# Further Information

- Project page: <http://www.bsc.es/compss>
  - Virtual Appliance for testing & sample applications
  - Tutorials
- Documentation: <https://compss-doc.readthedocs.org>
- Source Code
  -  <https://github.com/bsc-wdc/compss>
- Docker Image
  -  <https://hub.docker.com/r/compss/compss/>
- Applications
  -  <https://github.com/bsc-wdc/apps>
  -  <https://github.com/bsc-wdc/dislib>

# Installation

- Source Code
  - [https://compss-doc.readthedocs.io/en/2.8/Sections/01\\_Installation.html#](https://compss-doc.readthedocs.io/en/2.8/Sections/01_Installation.html#)
- Supercomputers packages
  - [http://compss.bsc.es/repo/sc/stable/COMPSS\\_2.8.tar.gz](http://compss.bsc.es/repo/sc/stable/COMPSS_2.8.tar.gz)
  - Untar and `./install <location>`
  - Configure `cfg` file

# PyCOMPSs - PIP install

- Release of PyCOMPSs pip package to enable automatic installation
  - `pip install pycompss`
- Documentation for the package
  - <https://pypi.python.org/pypi/pycompss/2.8/>





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EXCELENCIA  
SEVERO  
OCHOA

# THANK YOU!

[support-compss@bsc.es](mailto:support-compss@bsc.es)

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