AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems

Fact Sheet

Project Information

ANTAREX

Grant agreement ID: 671623

Project website

Funded under
H2020-EU.1.2.2.

Overall budget
€ 3 115 251,25

EU contribution
€ 3 115 251

Coordinated by
POLITECNICO DI MILANO
Italy

Start date
1 September 2015

End date
30 November 2018

Objective

Energy-efficient heterogeneous supercomputing architectures need to be coupled with a radically new software stack capable of exploiting the benefits offered by the heterogeneity at all the different levels (supercomputer, job, node) to meet the scalability and energy efficiency required by Exascale supercomputers. ANTAREX will solve these challenging problems by proposing a disruptive holistic approach spanning all the decision layers composing the supercomputer software stack and exploiting effectively the full system capabilities (including heterogeneity and energy management). The main goal of the ANTAREX project is to provide a breakthrough approach to express application self-adaptivity at design-time and to runtime manage and autotune applications for green and heterogenous High Performance Computing (HPC) systems up to the Exascale level.
Field of science

/engineering and technology/electrical engineering, electronic engineering, information engineering/electronic engineering/computer hardware/supercomputer
/natural sciences/computer and information sciences/software
/engineering and technology/environmental engineering/waste management/energy efficiency

Programme(s)

Topic(s)

Call for proposal

H2020-FETHPC-2014

Funding Scheme

RIA - Research and Innovation action

Coordinator

POLITECNICO DI MILANO

Address

Piazza Leonardo Da Vinci 32
20133 Milano
Italy

Activity type

Higher or Secondary Education Establishments

EU contribution

€ 597 500

Website

Contact the organisation

Participants (7)

EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH

Address

Raemistrasse 101
8092 Zuerich

Activity type

Higher or Secondary Education Establishments

EU contribution

€ 446 250
UNIVERSIDADE DO PORTO
Portugal
EU contribution
€ 394 250
Address
Praca Gomes Teixeira
4099 002 Porto
Activity type
Higher or Secondary Education Establishments
Website Contact the organisation

INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET AUTOMATIQUE
France
EU contribution
€ 271 001
Address
Domaine De Voluceau
Rocquencourt
78153 Le Chesnay Cedex
Activity type
Research Organisations
Website Contact the organisation

CINECA CONSORZIO INTERUNIVERSITARIO
Italy
EU contribution
€ 412 500
Address
Via Magnanelli 6/3
40033 Casalecchio Di Reno
Activity type
Research Organisations
Website Contact the organisation

VSB - TECHNICAL UNIVERSITY OF OSTRAVA
Czechia
EU contribution
€ 401 250
Address
17 Listopadu 2172/15
Activity type
Higher or Secondary
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<th>Country</th>
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<td>DOMPE FARMACEUTICI SPA</td>
<td>Italy</td>
<td>€ 296 250</td>
<td>Via S Martino Della Battaglia 12, 20122 Milano</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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<td>SYGIC AS</td>
<td>Slovakia</td>
<td>€ 296 250</td>
<td>Twin City C Mlynske Nivy 16, 821 09 Bratislava</td>
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Record number: 197938

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