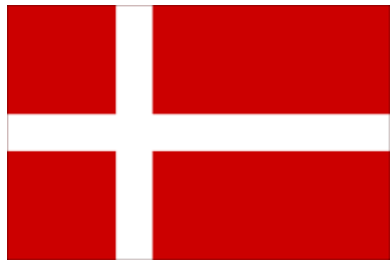


> **List of DK projects in PRACE, 2011 to 2021
PRACE Call#1-22 (Tier-0)**



Information from:

<https://prace-ri.eu/hpc-access/project-access/project-access-awarded-projects/>



Projects with participation from DK (Page 1/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Joliot-Curie (SKL) hosted by GENCI at CEA, France	43 000 000	Chemical Sciences and Materials	Polymer physics	SDU	Project Leader: Carsten Svaneborg	22	01 April 2021 – 31 March 2022
Hawk hosted by GCS at HLRS, Germany	35 000 000	Fundamental Constituents of Matter	Breaking the Strong Interaction: Towards Quantitative Understanding of the Quark-Gluon Plasma	SDU	CO: Benjamin Jäger	22	01 April 2021 – 31 March 2022
JUWELS hosted by GCS at FZJ, Germany	37 000 000	Chemical Sciences and Materials	Computational investigations of electrochemical carbon dioxide reduction towards high value products	DTU	Project Leader: Karen Chan and 3 others from DTU	22	01 April 2021 – 31 March 2022
Joliot-Curie (KNL) hosted by GENCI at CEA, France	3 700 000	Universe Sciences	SuperStars – Self-consistent Supernova Driven Star Formation (3 rd of 3 years)	KU	CO: Troels Haugbølle and Per-Åke Nordlund	22	01 April 2021 – 31 March 2022
Joliot-Curie Rome hosted by GENCI at CEA, France	19 400 000	Universe Sciences	SuperStars – Self-consistent Supernova Driven Star Formation (3 rd of 3 years)	KU	CO: Troels Haugbølle and Per-Åke Nordlund	22	01 April 2021 – 31 March 2022

CO, Collaborators



Projects with participation from DK (Page 2/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Marconi100 hosted by CINECA, Italy	56 700 000	Biochemistry, Bioinformatics and Life Sciences	MEMREP: Multi-scale simulations of annexin-mediated membrane repair mechanisms and of strategies to undermine membrane repair in cancer cells	SDU, KU and DCRC	Project Leader: Dr. Himanshu Khandelia (SDU) and additional 6 from SDU, 1 from KU, 1 from DCSRC	21	01 Oct 2020 – 30 Sep 2021
Joliot-Curie Rome hosted by GENCI at CEA, France	37 700 000	Engineering	Partially Premixed Turbulent Combustion of Alternative Fuels in Large Marine Engines	DTU and MAN Energy Solutions	Project Leader: Prof. Jens Honore Walther (DTU) and additional 4 from DTU and 1 from MAN En. Sol.	21	01 Oct 2020 – 30 Sep 2021
SuperMUC hosted by GCS at LRZ, Germany	60 000 000	Fundamental Constituents of Matter	Lattice QCD master field simulations at physical quark masses	SDU	Project Leader: Prof. John Bulava, CP3-Origins	20	01 April 2020 – 31 March 2021
Joliot-Curie Rome hosted by GENCI at CEA, France	20 000 000	Fundamental Constituents of Matter	Breaking the Strong Interaction: Towards Quantitative Understanding of the Quark-Gluon Plasma	SDU	CO: Benjamin Jäger	20	01 April 2020 – 31 March 2021
Joliot-Curie Rome + SKL	6 200 000 + 16 800 000	Universe Sciences	SuperStars – Self-consistent Supernova Driven Star Formation	KU	CO: Troels Haugbølle & Per-Åke Nordlund	20	01 April 2020 – 31 March 2021



Projects with participation from DK (Page 3/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
No projects from Denmark						19	
MARCONI (KNL) hosted by CINECA, Italy	30 000 000	Fundamental Constituents of Matter	Breaking the Strong Interaction: Towards Quantitative Understanding of the Quark-Gluon Plasma	SDU	CO: Benjamin Jäger	18	02 April 2019 – 01 April 2020
Joliot-Curie (SKL) hosted by GENCI at CEA, France	16 500 000	Universe Sciences	SuperStars — Self-consistent Supernova Driven Star Formation	KU	CO: Troels Haugbølle and Per-Åke Nordlund	18	02 April 2019 – 01 April 2020
Joliot-Curie (SKL) hosted by GENCI at CEA, France	15 000 000	Mathematics and Computer Sciences	TopBridge – Topology optimization of bridge girders in cable supported bridge LINK: https://prace-ri.eu/scientists-harness-computing-power-to-design-the-perfect-bridge/	DTU and COWI A/S	Project Leader: Prof. Ole Sigmund and CO: Niels Aage, (DTU) and Mads Jacob Baandrup (COWI A/S)	17	02 Oct 2018 – 01 Oct 2019
Joliot-Curie (SKL) hosted by GENCI at CEA, France	23 600 000	Universe Sciences	PlanetsInBed – Embedded planets in wind-driven disc	KU	CO: Oliver Gressel and Pablo Benitez-Llambay	17	02 Oct 2018 – 01 Oct 2019

CO, Collaborators



Projects with participation from DK (Page 4/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
MareNostrum 4 hosted by BSC, Spain	56 700 000	Earth System Sciences	NEWA-ProRun: New European Wind Atlas Production Run Paper I: https://gmd.copernicus.org/articles/13/5053/2020/ Paper II: https://gmd.copernicus.org/articles/13/5079/2020/	DTU	Project Leader: Dr. Andrea Hahmann	16	03 April 2018 – 31 March 2019
No projects from Denmark						15	
Piz Daint hosted by CSCS, Switzerland	18 000 000	Biochemistry, Bioinformatics and Life sciences	FLEXO: The relationship between electrostatic potential and curvature in biomembranes, and its impact on membrane transport	SDU	Project Leader: Dr Himanshu Khandelia and 7 others (SDU)	14	01 April 2017 – 31 March 2018
MARCONI (KNL) hosted by CINECA, Italy	15 000 000	Biochemistry, Bioinformatics and Life sciences	“DNA VAULT” – simulation of a DNA origami nanostructure able to control single molecule enzymatic activity	AU	CO: Ebbe Sloth Andersen and Guido Grossi	14	01 April 2017 – 31 March 2018
MARCONI (KNL) hosted by CINECA, Italy	60 000 000	Universe Sciences	Ab initio 3D MHD simulations of solar and stellar coronae	KU	Project Leader: Dr Klaus Galsgaard and 3 others (KU)	13	01 Sep 2016 – 31 Aug 2017

CO, Collaborators



Projects with participation from DK (Page 5/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
MARCONI (Broadwell) hosted by CINECA, Italy	2 500 000	Universe Sciences	QUANTSTAR – Quantitative Models of a Star Forming Cluster	KU	Project Leader: Prof Troels Haugbølle and 9 others (KU)	13	01 Sep 2016 – 31 Aug 2017
MARCONI (KNL) hosted by CINECA, Italy	19 500 000	Universe Sciences	QUANTSTAR – Quantitative Models of a Star Forming Cluster	KU	Project Leader: Prof Troels Haugbølle and 9 others (KU)	13	01 Sep 2016 – 31 Aug 2017
MareNostrum 3 hosted by BSC, Spain	9 032 000	Universe Sciences	P-DIPS – Planet-disc-interaction in evolving protostellar systems	KU	Project Leader: Dr Oliver Gressel	13	01 Sep 2016 – 31 Aug 2017
No projects from Denmark						12	
No projects from Denmark						11	
Curie (thin nodes) hosted by GENCI at CEA, France	7 306 240	Biochemistry, Bioinformatics and Life sciences	UNIDE: Understanding Insulin Dynamic Ensembles	KU	Project Leader: Prof Kresten Lindorff-Larsen and 2 others (KU)	10	10 March 2015 – 9 March 2016

CO, Collaborators



Projects with participation from DK (Page 6/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Curie (thin nodes) hosted by GENCI at CEA, France	12 000 000	Engineering	TopWing – Topology optimization of aircraft wing	DTU	Project Leader: Prof Ole Sigmund and 3 others (DTU)	10	10 March 2015 – 09 March 2016
FERMI hosted by CINECA, Italy	21 000 000	Mathematics and Computer Sciences	NANOCARGO – design of self-assembling DNA nano-cages provided with pH and temperature controlled gates for the target-delivery of biomolecules	AU	CO: Birgitta Knudsen	10	10 March 2015 – 09 March 2016
Curie* + SuperMUC** + FERMI ***	65 000 + 13 800 000 + 25 300 000	Fundamental Constituents of Matter	Nucleon structure using lattice QCD simulations with physical pion mass	SDU	CO: Vincent Drach	9	02 Sep 2014 – 01 Sep 2015
MareNostrum 3 hosted by BSC, Spain	7 500 000	Fundamental Constituents of Matter	MCH – Minimal Composite Higgs	SDU	Project Leader: Prof Claudio Pica and 7 others (SDU)	9	02 Sep 2014 – 01 Sep 2015

CO, Collaborators

- *Curie (hybrid nodes) hosted by GENCI at CEA, France
- **SuperMUC hosted by GCS at LRZ, Germany
- ***FERMI hosted by CINECA, Italy



Projects with participation from DK (Page 7/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Curie (thin nodes) hosted by GENCI at CEA, France	40 000 000	Biochemistry, Bioinformatics and Life sciences	Linear Scaling and Massively Parallel Coupled-Cluster Calculations on the Leucine Transporter within a DEC framework	AU	Project Leader: Dr Thomas Kjaergaard and 7 others (AU)	8	04 March 2014 – 03 March 2015
Curie* + FERMI**	2 500 000 + 80 000 000	Fundamental Constituents of Matter	LEAC – Laser-plasma Electron Acceleration for CILEX	KU	CO: Jacob Trier Fredriksen	8	04 March 2014 – 03 March 2015
Curie (fat nodes) + Curie (thin nodes) hosted by GENCI at CEA, France	4 000 000 + 6 000 000	Universe Sciences	STARZOOM – Zooming in on Star Formation	KU	Project Leader: Dr Troels Haugbølle and 9 others (KU)	8	04 March 2014 – 03 March 2015

*Curie (thin nodes) hosted by GENCI at CEA, France

**FERMI hosted by CINECA, Italy

CO, Collaborators



Projects with participation from DK (Page 8/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Curie (thin nodes) hosted by GENCI at CEA, France	11 289 600	Biochemistry, Bioinformatics and Life sciences	NMRFUNC	KU	Project Leader: Prof Kresten Lindorff-Larsen and Kaare Teilum	7	03 Sep 2013 – 02 Sep 2014
Curie (fat nodes) hosted by GENCI at CEA, France	7 000 000	Biochemistry, Bioinformatics and Life sciences	DNANANO Molecular dynamics simulation and experimental characterization of a DNA nanocage family	AU	CO: Birgitta R. Knudsen	6	04 March 2013 – 03 March 2014
MareNostrum 3 hosted by BSC, Spain	7 300 000	Fundamental Constituents of Matter	Simulating Dark Matter on the Lattice	SDU	Project Leader: Dr Ari Hietanen and 3 others (SDU)	6	04 March 2013 – 03 March 2014
JUQUEEN hosted by GCS at FZJ, Germany	75 000 000	Universe Sciences	StarLife – Protostars: From Molecular Clouds to Disc Microphysics	KU	Project Leader: Dr Troels Haugbølle and 8 others (KU)	6	04 March 2013 – 03 March 2014
No projects from Denmark						5	

*Curie (thin nodes) hosted by GENCI at CEA, France

**FERMI hosted by CINECA, Italy

CO, Collaborators



Projects with participation from DK (Page 9/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
Curie (fat nodes) hosted by GENCI at CEA, France	3 000 000	Chemical Sciences and Materials	High-accuracy quantum mechanic models for extended molecular systems	AU	Project Leader: Dr Branislav Jansik and 4 others (AU)	4	01 May 2012 – 31 April 2013
FERMI hosted by CINECA, Italy	22 133 333	Fundamental Constituents of Matter	Strong interactions beyond QCD	SDU	Project Leader: Prof Claudio Pica	4	01 May 2012 – 31 April 2013
SuperMUC hosted by GCS at LRZ, Germany	16 875 000	Universe Sciences	Extreme Star-Formation Modeling: From the Galactic Fountain to Single Stars in One Run <small>Padoan, P., et al. 2013, "The Star Formation Rate of Molecular Clouds", Protostars and Planet VI, invited review, submitted</small>	KU	CO: Christian Brinch, Jes Kristian Joergensen, Per-Åke Nordlund, Remo Collet	4	01 May 2012 – 31 April 2013
JUGENE hosted by GCS at FZJ, Germany	45 000 000	Universe Sciences	Ab Initio Modeling of Solar Active Regions	KU	Project Leader: Prof Per-Åke Nordlund and 5 others (KU)	4	01 May 2012 – 31 April 2013
No projects from Denmark						3	



Projects with participation from DK (Page 10/10)

HPC	CPU core hours	PRACE category	Project title	From DK	Reference(s) DK	CALL#	Allocation period
JUGENE hosted by GCS at FZJ, Germany	60 000 000	Universe Sciences	Ab Initio Modeling of Solar Active Regions	KU	Project Leader: Prof Per-Åke Nordlund and 5 others (KU)	2	01 May 2011 – 31 April 2012
No projects from Denmark						1	