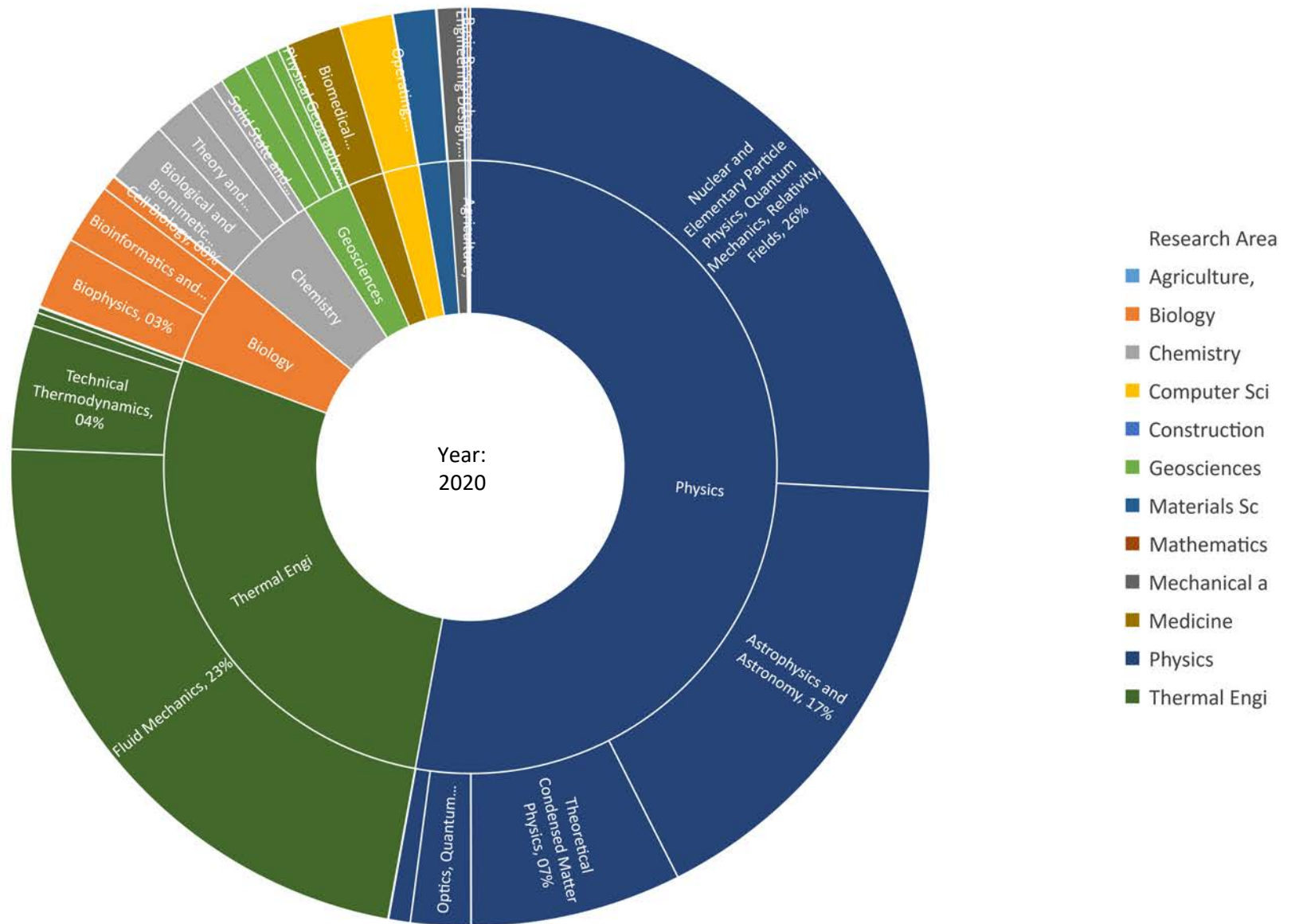


SuperMUC-NG
Usage Report



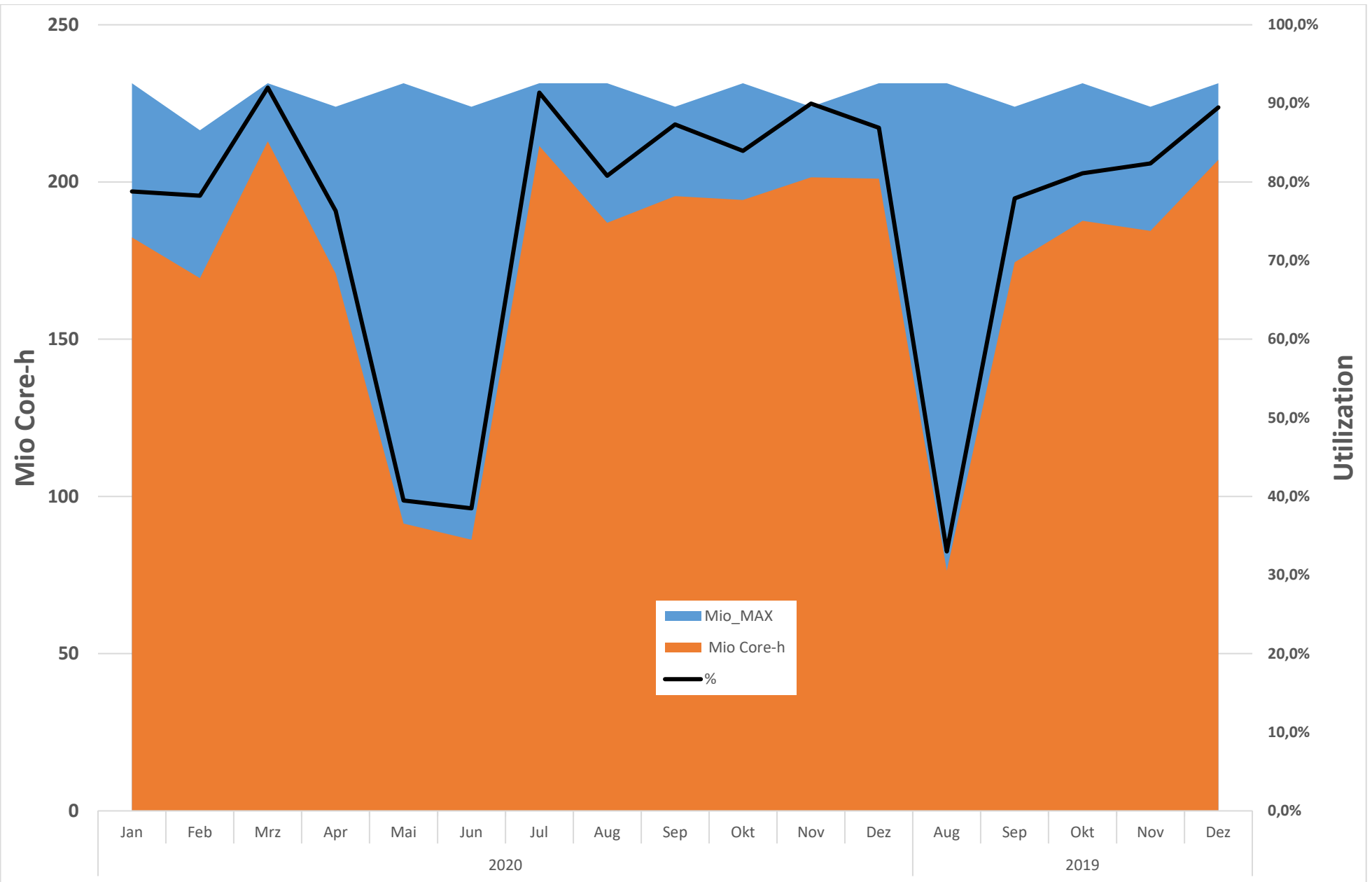
Usage by Month

Usage

Date	Mio_MAX	Mio Core-h	%	Jobs
2019	1142,1	830,1	72,8%	181474
Aug	231,4	76,4	33,0%	8820
Sep	223,9	174,5	77,9%	33770
Okt	231,4	187,7	81,1%	42718
Nov	223,9	184,4	82,4%	35553
Dez	231,4	207,1	89,5%	60613
2020	2732,2	2104,1	77,0%	659920
Jan	231,4	182,4	78,8%	89838
Feb	216,5	169,4	78,3%	61502
Mrz	231,4	212,9	92,0%	55216
Apr	223,9	170,9	76,3%	80881
Mai	231,4	91,3	39,5%	49271
Jun	223,9	86,2	38,5%	23801
Jul	231,4	211,4	91,4%	48823
Aug	231,4	187,0	80,8%	24603
Sep	223,9	195,5	87,3%	40965
Okt	231,4	194,3	84,0%	69044
Nov	223,9	201,5	90,0%	50772
Dez	231,4	201,1	86,9%	65204
Total	3874,3	2934,1	75,7%	841394

Mio_Max = max of potential usage = walltime of month * number of cores

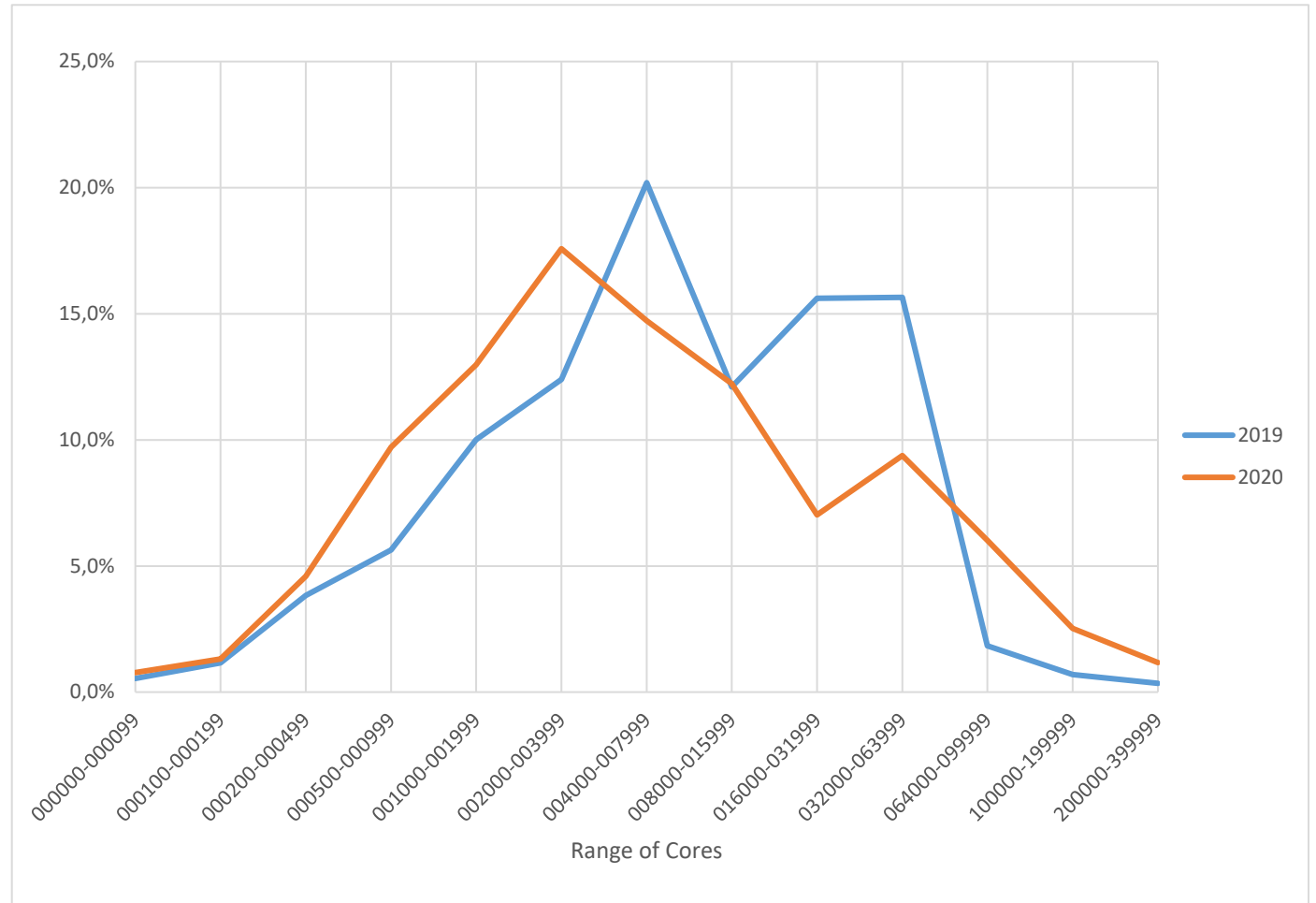
% = utilization = % of Max = Mio Core-h/Mio MAX



Usage by Jobsize

Usage (core-h) by Job size

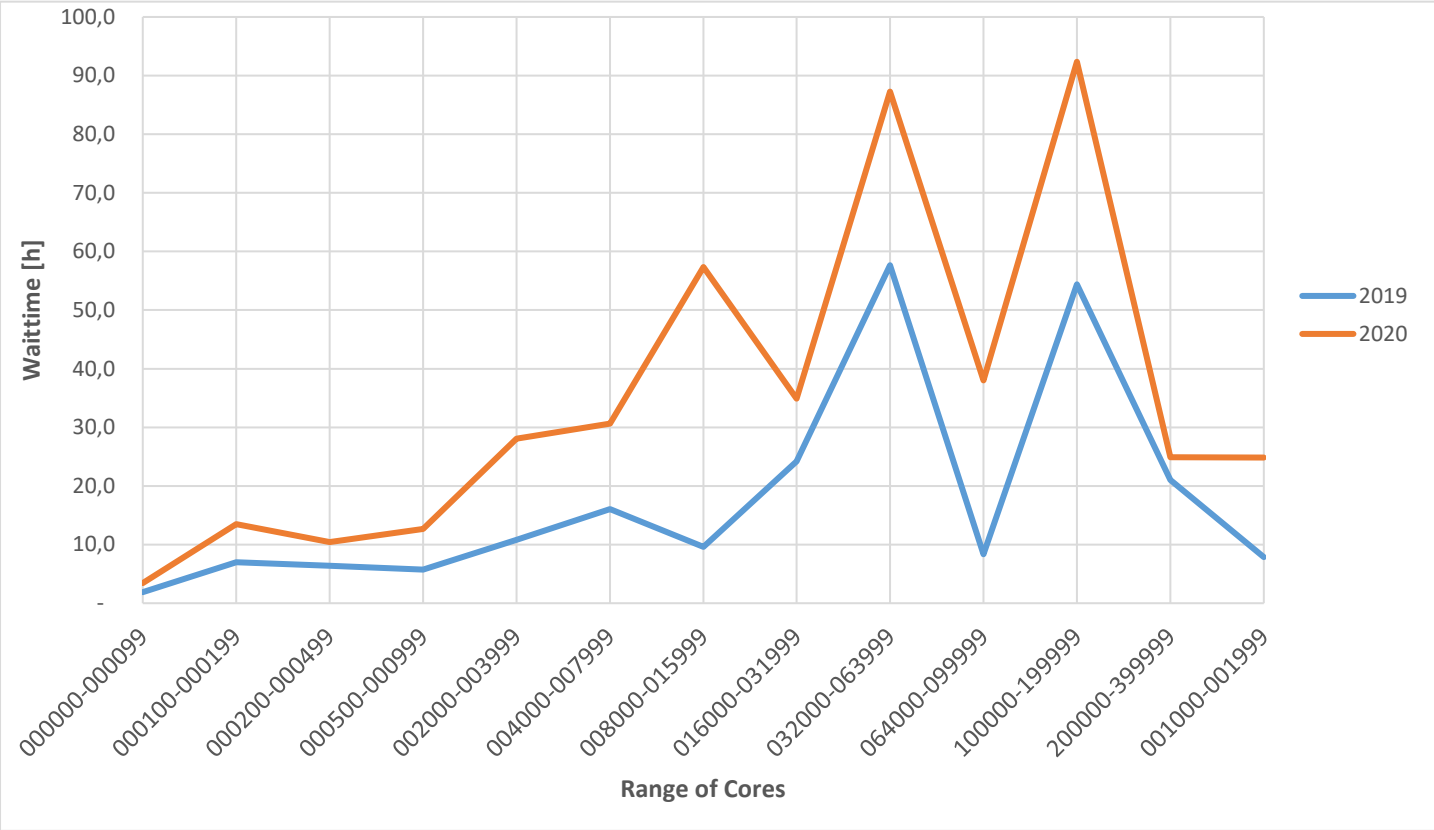
Usage by Job Size			
Range of cores	2019	2020	Total
000000-000099	0,5%	0,8%	0,7%
000100-000199	1,2%	1,3%	1,3%
000200-000499	3,8%	4,6%	4,4%
000500-000999	5,6%	9,7%	8,6%
001000-001999	10,0%	13,0%	12,1%
002000-003999	12,4%	17,6%	16,1%
004000-007999	20,2%	14,7%	16,3%
008000-015999	12,1%	12,2%	12,2%
016000-031999	15,6%	7,0%	9,5%
032000-063999	15,6%	9,4%	11,2%
064000-099999	1,8%	6,0%	4,8%
100000-199999	0,7%	2,5%	2,0%
200000-399999	0,3%	1,2%	0,9%
Total	100,0%	100,0%	100,0%



Wait time by Jobsite

Average Wait Time [hours] by Jobsite

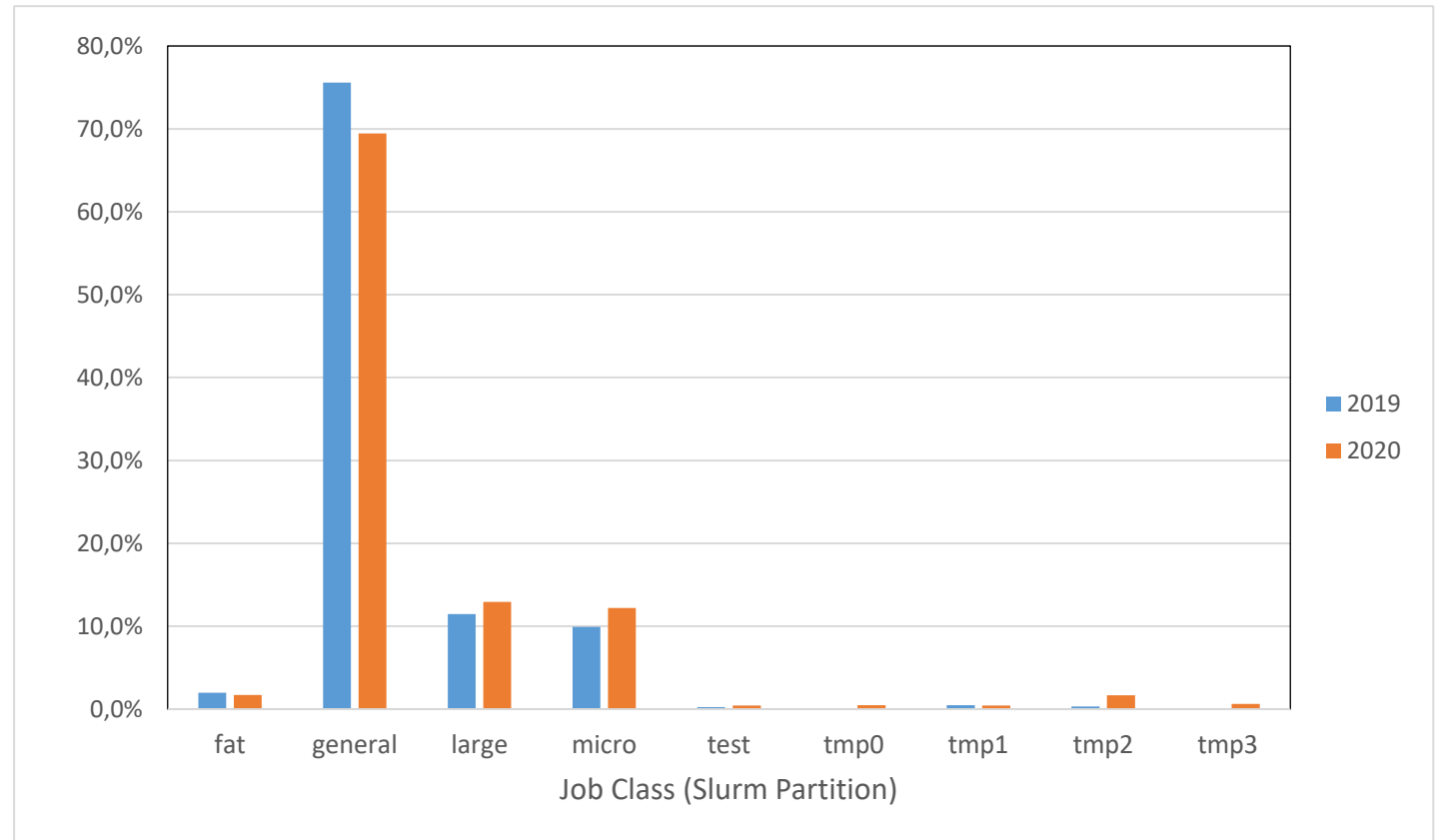
Avg. Wait Time [h]			
Jobsite [cores]	2019	2020	Total
000000-000099	1,9	3,4	2,7
000100-000199	7,0	13,5	10,2
000200-000499	6,4	10,4	8,4
000500-000999	5,7	12,7	9,2
002000-003999	10,8	28,1	19,5
004000-007999	16,0	30,7	23,4
008000-015999	9,6	57,3	33,5
016000-031999	24,2	34,9	29,5
032000-063999	57,7	87,3	72,5
064000-099999	8,3	38,0	23,2
100000-199999	54,4	92,4	73,4
200000-399999	21,0	24,9	23,0
001000-001999	7,8	24,8	16,3
Total	17,8	35,3	26,5



Usage by Job Class

% Usage (core-h) by Jobclass

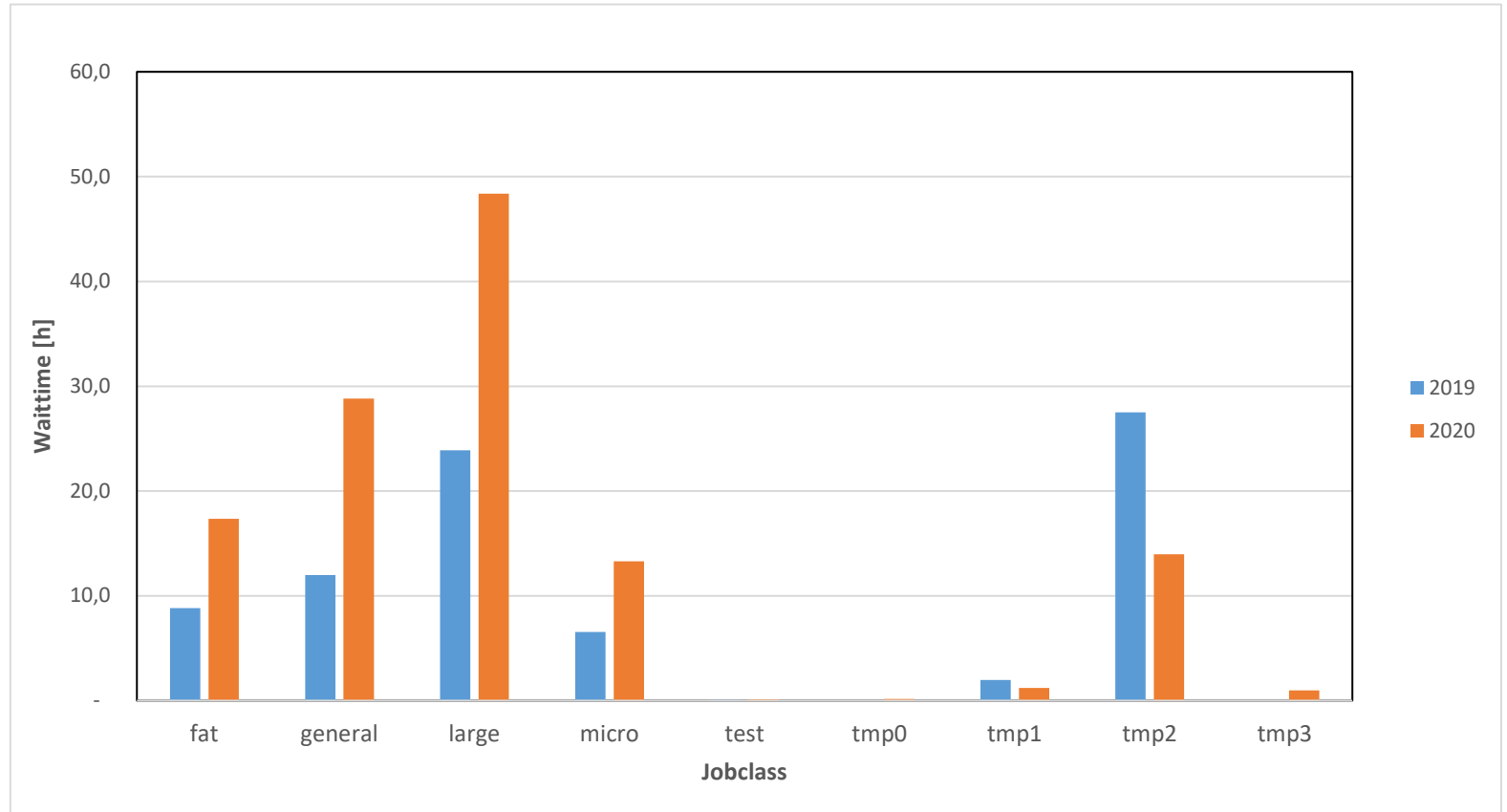
Usage	2019	2020	Total
fat	2,0%	1,7%	1,8%
general	75,6%	69,5%	71,2%
large	11,5%	12,9%	12,5%
micro	9,9%	12,2%	11,5%
test	0,2%	0,5%	0,4%
tmp0	0,0%	0,5%	0,3%
tmp1	0,5%	0,4%	0,4%
tmp2	0,3%	1,7%	1,3%
tmp3	0,0%	0,6%	0,5%
Total	100,0%	100,0%	100,0%



Waittime by Job Class

Average Wait Time [hours] by Jobclass

Avg Wait_h	2019	2020	Total
fat	8,8	17,3	13,1
general	12,0	28,8	20,4
large	23,9	48,4	36,1
micro	6,6	13,3	9,9
test	0,1	0,1	0,1
tmp0	na	0,2	0,2
tmp1	2,0	1,2	1,6
tmp2	27,5	14,0	20,7
tmp3	na	1,0	1,0
Total	11,5	13,8	12,8



Usage by Research Area

Usage by Research Area (DFG Classification Level 2, 3 and 4)

LV2 LV3 LV4

Usage	2019	2020	Total
Physics	57,8%	52,9%	54,3%
Particles, Nuclei and Fields	26,8%	25,8%	26,1%
Nuclear and Elementary Particle Physics, Quantum Mechanics, Relativity, Fields	26,8%	25,8%	26,1%
Astrophysics and Astronomy	20,8%	16,7%	17,9%
Astrophysics and Astronomy	20,8%	16,7%	17,9%
Condensed Matter Physics	9,7%	8,2%	8,6%
Theoretical Condensed Matter Physics	9,7%	7,4%	8,1%
Experimental Condensed Matter Physics	0,0%	0,8%	0,5%
Optics, Quantum Optics and Physics of Atoms, Molecules and Plasmas	0,5%	2,1%	1,7%
Optics, Quantum Optics, Atoms, Molecules, Plasmas	0,5%	2,1%	1,7%
Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics	0,0%	0,0%	0,0%
Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics	0,0%	0,0%	0,0%
Thermal Engineering/ Process Engineering	27,1%	27,8%	27,6%
Heat Energy Technology, Thermal Machines, Fluid Mechanics	27,1%	27,3%	27,2%
Fluid Mechanics	27,0%	22,7%	23,9%
Technical Thermodynamics	0,1%	4,4%	3,1%
Energy Process Engineering	0,0%	0,2%	0,1%
Process Engineering, Technical Chemistry	0,1%	0,5%	0,4%
Biological Process Engineering	0,1%	0,5%	0,4%
Chemical and Thermal Process Engineering	0,0%	0,0%	0,0%
Biology	4,2%	5,2%	4,9%
Basic Biological and Medical Research	4,2%	5,2%	4,9%
Biophysics	1,1%	2,5%	2,1%
Bioinformatics and Theoretical Biology	1,8%	2,1%	2,0%
Biochemistry	1,3%	0,5%	0,7%
General Genetics	0,1%	0,0%	0,0%
Cell Biology	0,0%	0,0%	0,0%
Chemistry	1,2%	5,0%	3,9%
Biological Chemistry and Food Chemistry	0,0%	2,3%	1,6%

Usage by Research Area

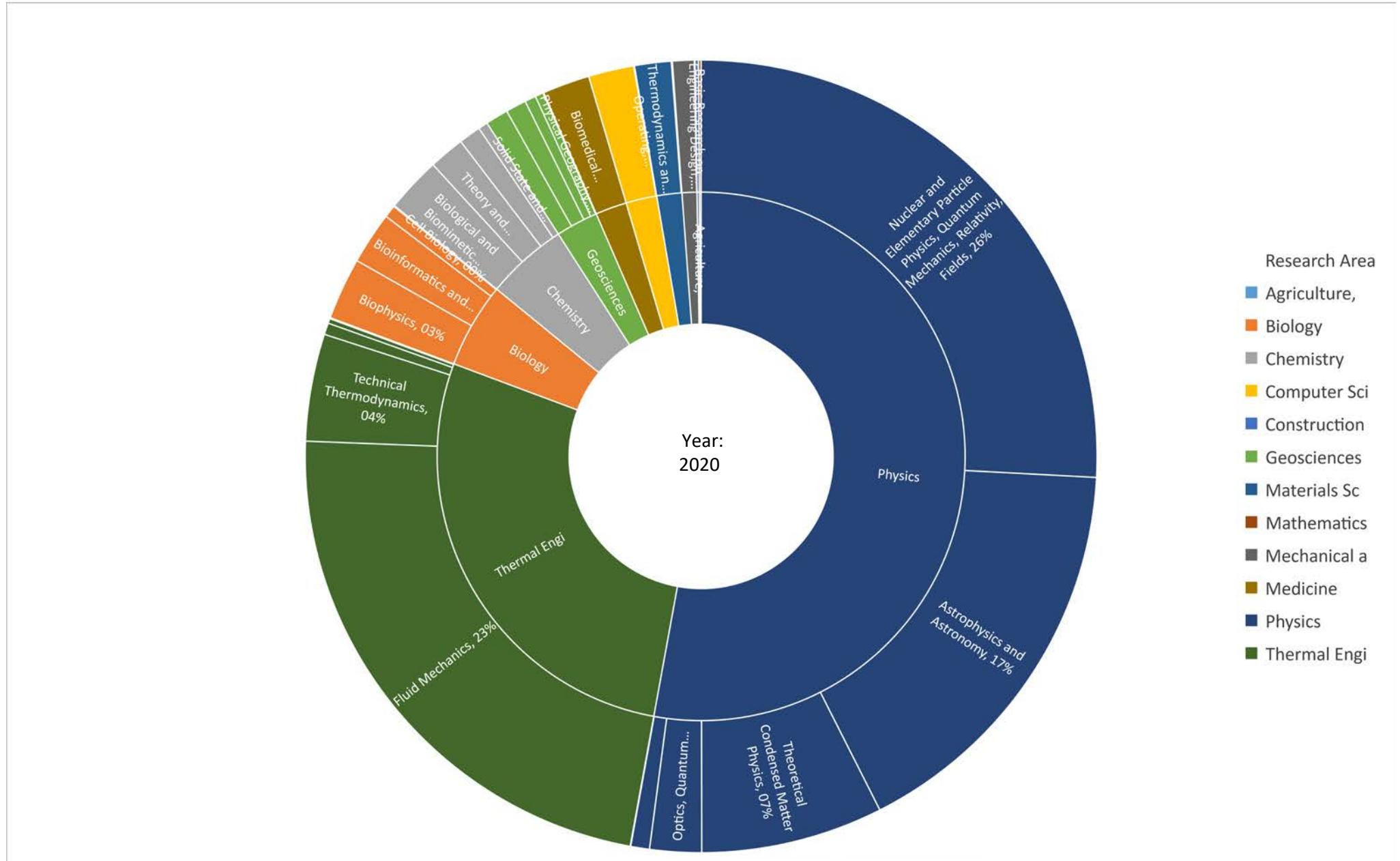
Chemistry	Biological and Biomimetic Chemistry	0,0%	2,3%	1,6%
	Chemical Solid State and Surface Research	0,9%	1,5%	1,3%
	Theory and Modelling	0,9%	1,5%	1,3%
	Solid State and Surface Chemistry, Material Synthesis	0,0%	0,0%	0,0%
	Physical and Theoretical Chemistry	0,3%	1,3%	1,0%
	General Theoretical Chemistry	0,3%	0,9%	0,7%
	Physical Chemistry of Molecules, Interfaces and Liquids - Spectroscopy, Kinetics	0,0%	0,4%	0,3%
	Geosciences	4,9%	2,6%	3,2%
	Geochemistry, Mineralogy and Crystallography	3,2%	0,9%	1,6%
	Geochemistry, Mineralogy and Crystallography	3,2%	0,9%	1,6%
	Geophysics and Geodesy	0,9%	1,3%	1,2%
	Geophysics	0,5%	0,8%	0,8%
	Geodesy, Photogrammetry, Remote Sensing, Geoinformatics, Cartography	0,3%	0,5%	0,4%
	Atmospheric Science, Oceanography and Climate Research	0,9%	0,3%	0,5%
	Atmospheric Science	0,9%	0,3%	0,5%
	Water Research	0,0%	0,0%	0,0%
	Hydrogeology, Hydrology, Limnology, Urban Water Management, Water Chemistry, Integrated Water Resources Management	0,0%	0,0%	0,0%
	Geography	0,0%	0,0%	0,0%
	Physical Geography	0,0%	0,0%	0,0%
	Computer Science, Systems and Electrical Engineering	2,3%	1,9%	2,0%
	Computer Science	2,3%	1,9%	2,0%
	Massively Parallel and Data-Intensive Systems	2,2%	1,9%	2,0%
	Interactive and Intelligent Systems, Image and Language Processing, Computer Graphics and Visualisation	0,1%	0,0%	0,0%
	Computer Architecture and Embedded Systems	0,0%	0,0%	0,0%
	Operating, Communication, Database and Distributed Systems	0,0%	0,0%	0,0%
	Medicine	0,6%	1,9%	1,5%
	Medicine	0,6%	1,9%	1,5%
	Biomedical Technology and Medical Physics	0,6%	1,9%	1,5%
	Epidemiology, Medical Biometry, Medical Informatics	0,0%	0,0%	0,0%
	Microbiology, Virology and Immunology	0,0%	0,0%	0,0%
	Virology	0,0%	0,0%	0,0%
	Materials Science and Engineering	1,5%	1,5%	1,5%
	Materials Science	1,5%	1,5%	1,5%

Usage by Research Area

Ma	M Thermodynamics and Kinetics of Materials	1,5%	1,5%	1,5%
	Biomaterials	0,0%	0,0%	0,0%
	Mechanical and Industrial Engineering	0,1%	0,9%	0,7%
	Mechanics and Constructive Mechanical Engineering	0,1%	0,9%	0,7%
	Mechanics	0,1%	0,9%	0,7%
	Acoustics	0,0%	0,0%	0,0%
	Engineering Design, Machine Elements, Product Development	0,0%	0,0%	0,0%
	Construction Engineering and Architecture	0,1%	0,1%	0,1%
	Construction Engineering and Architecture	0,1%	0,1%	0,1%
	Applied Mechanics, Statics and Dynamics	0,1%	0,1%	0,1%
	Mathematics	0,2%	0,1%	0,1%
	Mathematics	0,2%	0,1%	0,1%
	Mathematics	0,2%	0,1%	0,1%
	Agriculture, Forestry and Veterinary Medicine	0,0%	0,0%	0,0%
	Agriculture, Forestry and Veterinary Medicine	0,0%	0,0%	0,0%
	Basic Research on Pathogenesis, Diagnostics and Therapy and Clinical Veterinary Medicine	0,0%	0,0%	0,0%
Total		100,0%	100,0%	100,0%

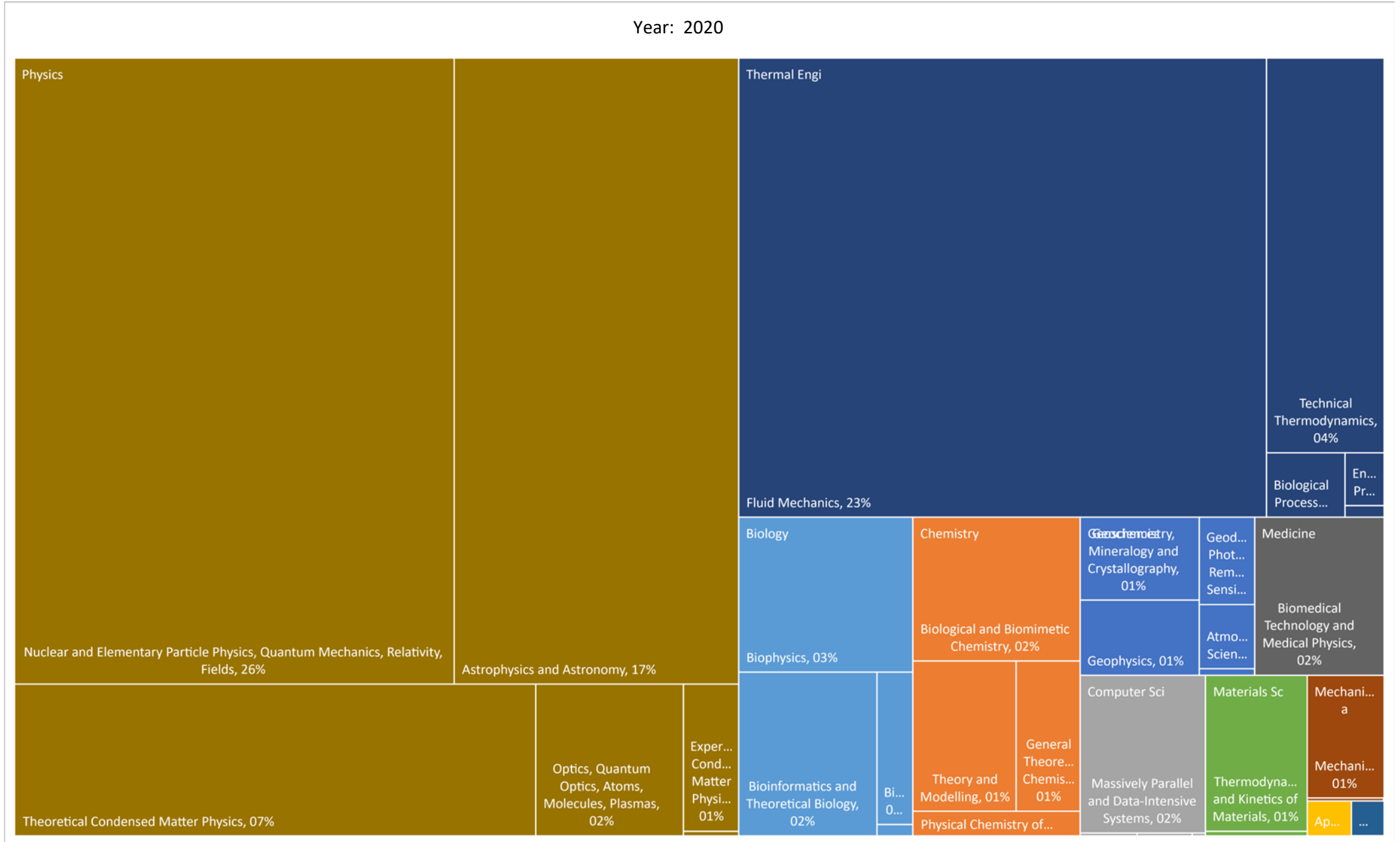
Usage by Research Area

Usage by Research Area (DFG Level 2 and 3)



Usage by Research Area

Usage by Research Area (DFG Level 2 and 3)



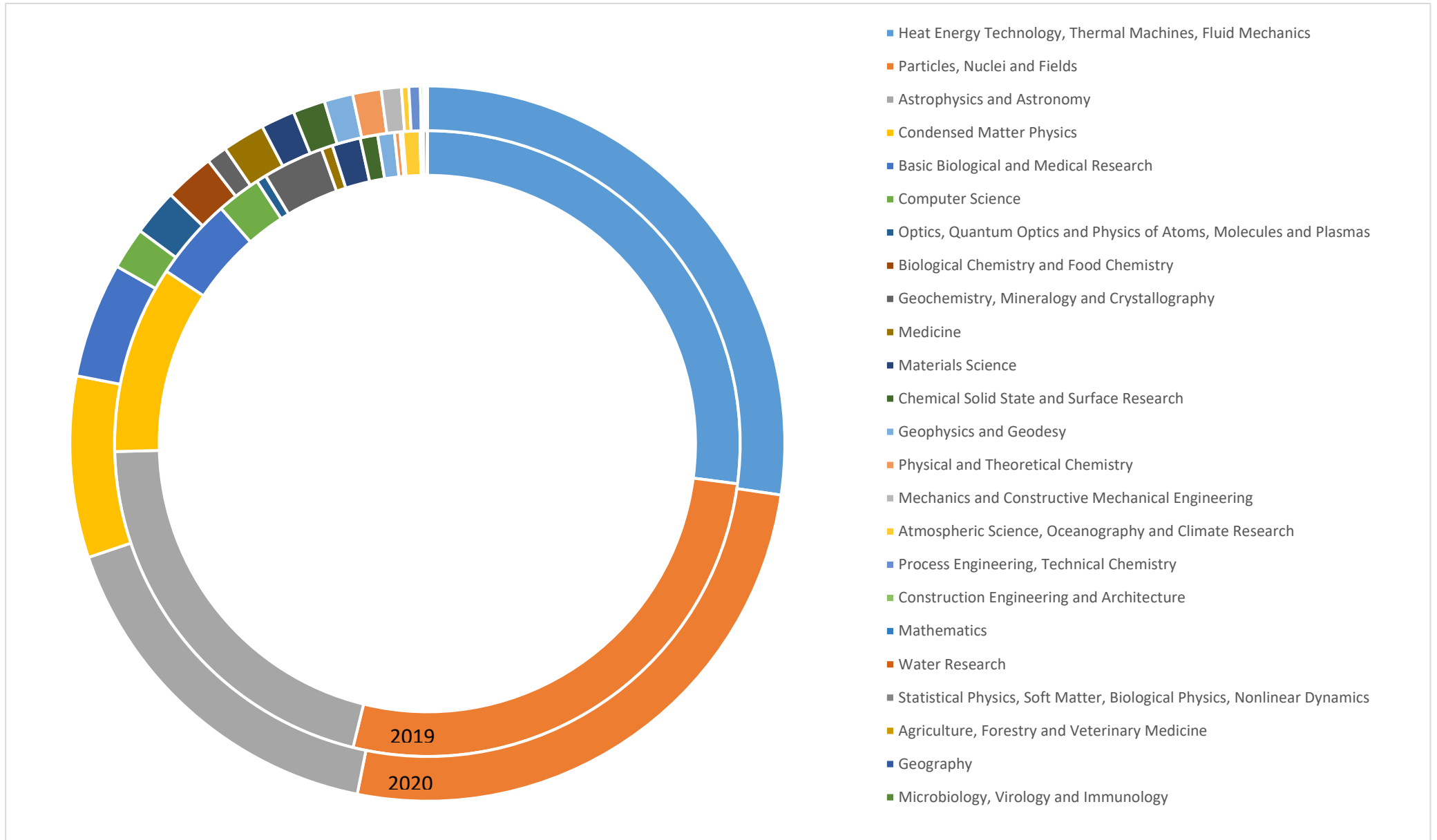
Usage by Research Area

Usage by research Area (DFG Level 3)

Usage DFG_TOPIC_LVL3_DESC	Year		
	2019	2020	Total
Heat Energy Technology, Thermal Machines, Fluid Mechanics	27,1%	27,3%	27,2%
Particles, Nuclei and Fields	26,8%	25,8%	26,1%
Astrophysics and Astronomy	20,8%	16,7%	17,9%
Condensed Matter Physics	9,7%	8,2%	8,6%
Basic Biological and Medical Research	4,2%	5,2%	4,9%
Computer Science	2,3%	1,9%	2,0%
Optics, Quantum Optics and Physics of Atoms, Molecules and Plasmas	0,5%	2,1%	1,7%
Biological Chemistry and Food Chemistry	0,0%	2,3%	1,6%
Geochemistry, Mineralogy and Crystallography	3,2%	0,9%	1,6%
Medicine	0,6%	1,9%	1,5%
Materials Science	1,5%	1,5%	1,5%
Chemical Solid State and Surface Research	0,9%	1,5%	1,3%
Geophysics and Geodesy	0,9%	1,3%	1,2%
Physical and Theoretical Chemistry	0,3%	1,3%	1,0%
Mechanics and Constructive Mechanical Engineering	0,1%	0,9%	0,7%
Atmospheric Science, Oceanography and Climate Research	0,9%	0,3%	0,5%
Process Engineering, Technical Chemistry	0,1%	0,5%	0,4%
Construction Engineering and Architecture	0,1%	0,1%	0,1%
Mathematics	0,2%	0,1%	0,1%
Water Research	0,0%	0,0%	0,0%
Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics	0,0%	0,0%	0,0%
Agriculture, Forestry and Veterinary Medicine	0,0%	0,0%	0,0%
Geography	0,0%	0,0%	0,0%
Microbiology, Virology and Immunology	0,0%	0,0%	0,0%
Total	100,0%	100,0%	100,0%

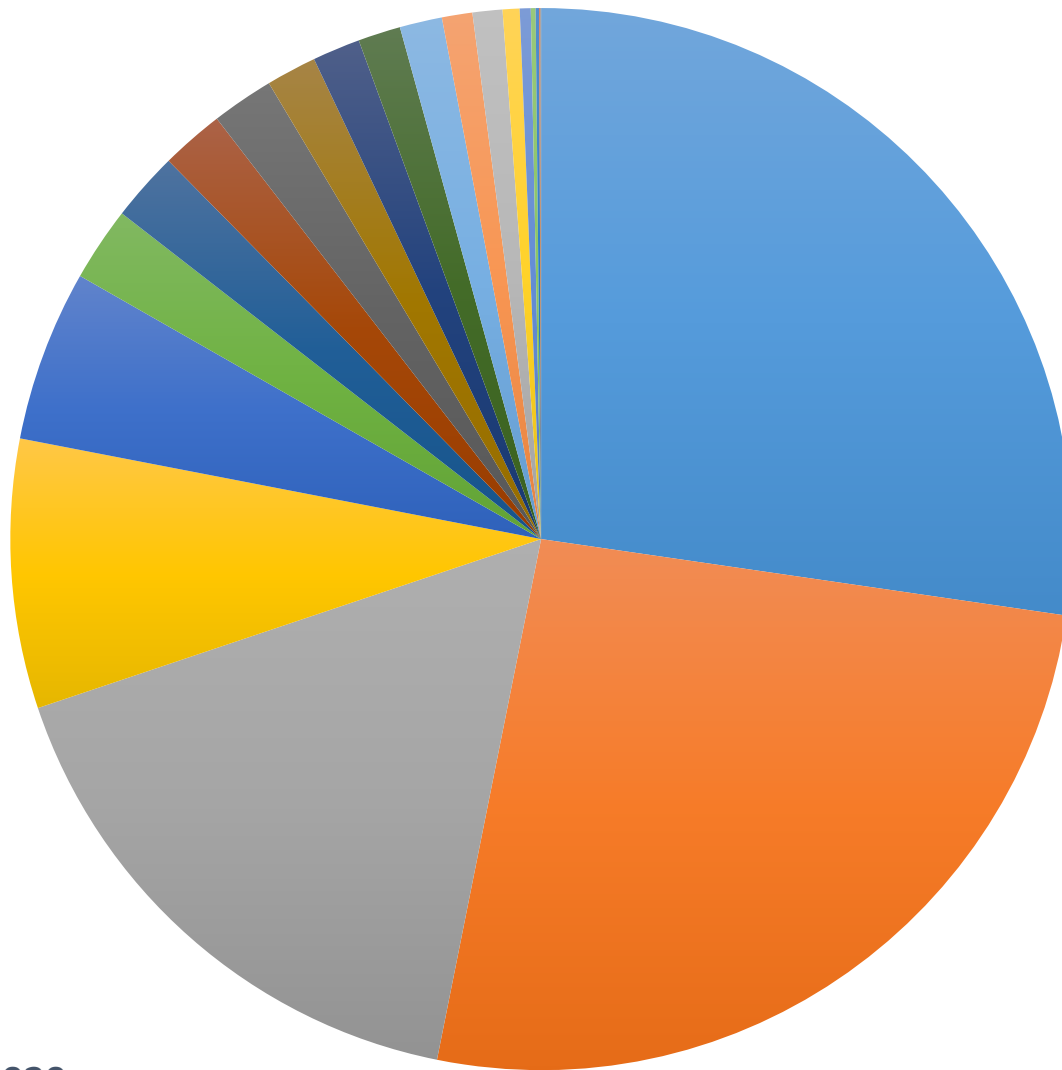
Usage by Research Area

Usage By Research Area (DFG Llevel 3)



Usage

DFG_TOPIC_LVL3_DESC



- Heat Energy Technology, Thermal Machines, Fluid Mechanics
- Particles, Nuclei and Fields
- Astrophysics and Astronomy
- Condensed Matter Physics
- Basic Biological and Medical Research
- Biological Chemistry and Food Chemistry
- Optics, Quantum Optics and Physics of Atoms, Molecules and Plasmas
- Medicine
- Computer Science
- Materials Science
- Chemical Solid State and Surface Research
- Geophysics and Geodesy
- Physical and Theoretical Chemistry
- Geochemistry, Mineralogy and Crystallography
- Mechanics and Constructive Mechanical Engineering
- Process Engineering, Technical Chemistry
- Atmospheric Science, Oceanography and Climate Research
- Construction Engineering and Architecture
- Mathematics
- Water Research
- Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics
- Agriculture, Forestry and Veterinary Medicine
- Geography
- Microbiology, Virology and Immunology

2020

Year

