

Computing Users

## Most active users in 2008 by institution

USER	DEPT./CENTRE	HOURS USED
<b>SANTIAGO DE COMPOSTELA UNIVERSITY (USC)</b>		
Manuel María González Alemany	Applied Physics	574,649.4
Luis Tortajada Iaviu	Condensed Matter Physics	409,140.1
Lucas Vázquez Besteiro	Condensed Matter Physics	329,355.0
Ángel Piñeiro Guillen	Applied Physics	291,328.7
Paola Mendoza Espinosa	Applied Physics	232,715.5
María Pilar Brocos Fernández	Applied Physics	169,876.0
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<b>A CORUÑA UNIVERSITY (UDC)</b>		
Daniel Rivero Cebrián	Communications & Information Technologies	152,969.9
Oscar Ibáñez Panizo	Communications & Information Technologies	145,231.7
Daniel Rodríguez Ramos	Chemistry, Physics and Chemical Engineering I	85,894.1
María Isabel Fernández Pérez	Chemistry, Physics and Chemical Engineering I	65,092.3
Sonia Vilariño Patiño	Fundamental Chemistry	62,876.1
María Fernández González	Fundamental Chemistry	54,704.7
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<b>VIGO UNIVERSITY (UVIGO)</b>		
Fernando Obelleiro Basteiro	Signal Theory and Communications	155,254.4
Olalla Nieto Faza	Organic Chemistry	121,971.8
Rosana Álvarez Rodríguez	Organic Chemistry	56,304.0
Laura Estévez Guiance	Analytical Chemistry and Nutrition	34,376.8
Adán Borja González Pérez	Organic Chemistry	32,359.0
José Antonio Souto Salgado	Organic Chemistry	23,786.0
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<b>SPANISH NATIONAL RESEARCH COUNCIL (CSIC)</b>		
José Carlos Conesa Cegarra	Group of Fundamental and Applied Catalysis	541,568.4
Víctor Cruz Cañas	Molecular Physics Dept.	540,875.7
Manuel Cobian González	Atomic & Molecular Physics Theoretical Dept.	434,634.2
Octavio Roncero Villa	Atomic & Molecular Physics Theoretical Dept.	265,822.2
Jorge Sánchez Dolado	Nanostructured Materials Unit	253,737.6
Delia Fernández Torre	Molecular Physics Dept.	200,353.8

Both the number of users from CSIC Centres (+54%), and the CPU hours used (+1,032%) by these dramatically increased in 2008

CSIC CENTRES		Department-Group	# of active user accounts		Hours used	
			2007	2008	2007	2008
	Instituto de Tecnología Química (ITQ)	Grupo de carbohidratos	0	1	0	2,453.4
	Centro de Investigaciones Biológicas (CIB)	Estructura y función de proteínas	3	1	13,888	41,976.7
		Microscopía electrónica de Macromoléculas	1	1	1,067.7	1,223.1
		Grupo de Resonancia Magnética Nuclear	3	3	4,648.6	1,098.7
	Centro de Investigación y Desarrollo (CID)	Centro de Investigación y Desarrollo	1	0	5,071.5	0
	Estación Biológica de Doñana (EBD)	Ecología de Humedales, Genética de la Conservación en Peces Litorales	0	1	0	75.2
		Biología Evolutiva; Integrative Ecology Group	1	4	446.8	26,420.3
		Genética de la conservación	2	4	12,181.8	19,832.9
		Evolución de relaciones planta animal	0	2	0	17,356
	Centro Nacional de Biotecnología (CNB)	Estructura de Adenovirus	0	1	0	86,395.2
		Departamento de Estructura Macromolecular	0	4	0	8,483.8
	Instituto de Ciencia de Materiales de Barcelona (ICMAB)	Estructura Electrónica de Materiales	0	9	0	635,169.9
		Departamento Teoría y simulación de materiales	0	2	0	12,783.4
	Estación experimental del Zaidín (EEZ)	Ciencias de la Tierra y Química Ambiental/ Química Teórica y Modelización Molecular	7	3	60,928.5	6,940.7
	Institut Mediterrani d'Estudis Avançats (IMEDEA)	PANCODING	0	1	0	66.5
	Instituto Cajal (IC)	Neurobiología del Desarrollo	1	1	16,680.9	550.2
	Instituto de Análisis Económico (IAE)	Instituto de Análisis Económico	0	1	0	1,923.8
	Instituto de Catálisis y Petrolequímica (ICP)	Grupo de Catálisis Fundamental y Aplicada	2	1	11,129.5	541,568.4
	Instituto de Ciencia de Materiales de Aragón (ICMA)	Química Orgánica	1	1	48	5,804.3
		Química de los Compuestos Organometálicos	1	0	283.3	0
		Química/Grupo Síntesis Orgánica Estereoselectiva	1	1	19,087.6	48,015.5
	Instituto de Ciencias de Materiales de Sevilla (ICMS)	FQM282	0	1	0	20,849.8
		Superficies, intercapas y capas finas	0	1	0	48,511.6
	Instituto de Estructura de la materia (IEM)	Departamento de Física Molecular	3	3	4,282.4	743,093
		Instituto de Estructura de la Materia	4	2	3,979.3	159,259.8
		Departamento de Astrofísica Molecular e Infrarroja	5	5	7,403.3	102,698.7
	Instituto de Física de Cantabria (IFCA)	Departamento de Estructura de la Materia; Grupo de Física Estadística y no Lineal	1	1	41	19,375.7
		Departamento de Astrofísica; Grupo CMB	1	0	89.5	0
	Instituto de Investigaciones Químicas (IIQ)	Grupo de síntesis Orgánica y Reconocimiento Molecular	0	1	0	17.4
	Instituto de Matemáticas y Física Fundamental (IMAFF)	Matemáticas	3	3	4,486.4	76,545
		Departamento de Física Atómica y Molecular Teórica	7	9	18,262.7	534,929.3
	Instituto de Investigaciones Químicas y Ambientales de Barcelona (IIQAB)	Química Teórica y Computacional	0	5	0	122,446.4
	Instituto de Química Médica (IQM)	Quimioterapia	2	2	14,911.3	1,506
	Instituto de Química Orgánica General (IQOG)	Química Orgánica Biológica	4	2	18,017.6	3,906.1
		Laboratorio de Radicales Libres y Química Computacional	0	2	0	2,488.5
		Productos Naturales	1	1	11,458.2	70
	Instituto Nacional del carbón (INCAR)	Texture of Materials for energetic applications	0	2	0	4,161
	Centre d'Estudis Avançats de Blanes	Unidad de Investigación de Ciencias Marinas Operacionales y Sostenibilidad	0	1	0	1,391.7
	Unidad asociada CSIC-LABELN	Unidad de Materiales Nanoestructurados	1	1	13,193.2	253,737.6
	Centro de Biología Molecular Severo Ochoa (CBM)	Diseño Racional de Encimas-BioWeb	0	1	0	20,042.5
	Instituto de Ciencia y Tecnología de Polímeros (ICTP)	Química Macromolecular	1	1	8,241.9	22,362
<b>TOTAL ACTIVE CSIC ACCOUNTS AND HOURS USED</b>			<b>57</b>	<b>86</b>	<b>316,429</b>	<b>3,605,455.6</b>

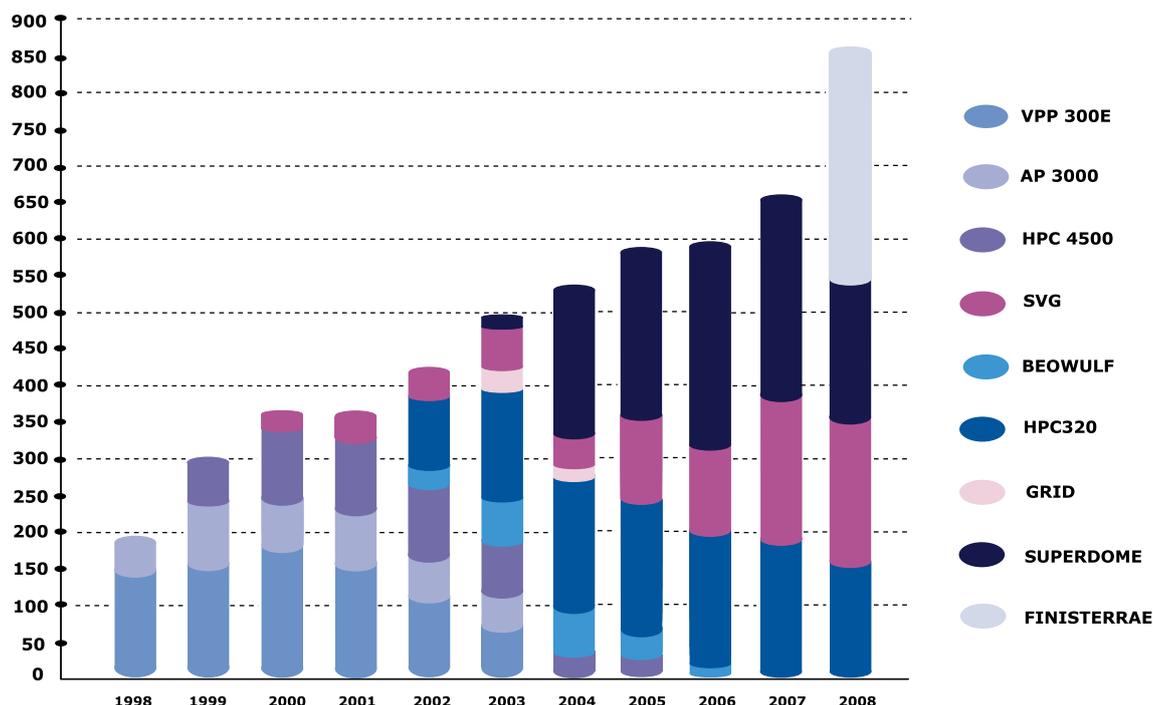
# computing users

## Number of Active User Accounts

Finis Terrae is the system with the greatest number of active accounts (that is, users with significant CPU time consumption throughout the year) with 313 users during its first year of operation. The SVG system had 213 active user accounts, increasing by 26 that of the previous year, in addition to Grid project users that are included within CESGA's projects and that pertain to national and international institutions present in the different

Grid initiatives in which CESGA participates (The Spanish e-Science Network, European projects such as EGEE, EELA and int.eu.grid, Spanish projects such as RETELAB and CYTEDGRID, and regional projects such as FORMIGA and G-FLUXO). In total, the number of active accounts increased by 53%, from 645 in 2007 to 986 in 2008. This growth was fundamentally motivated by the increase in the number of users of the Finis Terrae system and the incorporation of of Grid computing users.

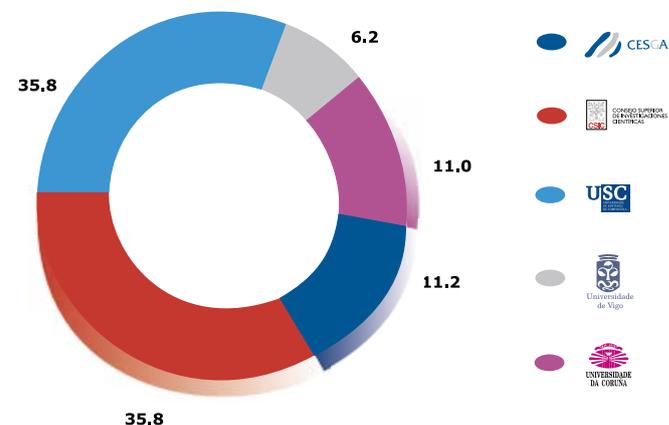
USER ACCOUNT EVOLUTION PER SYSTEM PER YEAR



## Distribution by Institutions of the CPU hours Consumed in all Systems

With respect to institutions, the University of Santiago de Compostela and CSIC registered the greatest number of computing hours. The University of Santiago de Compostela consumed 35.8% of the total hours (which is 6.2% less than in 2007) which is the same consumption as CSIC that grew from 17% in 2007 to 35.8% in 2008. As a whole, the three Galician universities represent 53% of the total consumption (decreasing 24.1% with respect to the previous year). The projects in which CESGA participated were responsible for 11.2% of the hours consumed which include some of the computational challenges performed using Finis Terrae.

CPU USE DISTRIBUTION BY INSTITUTION

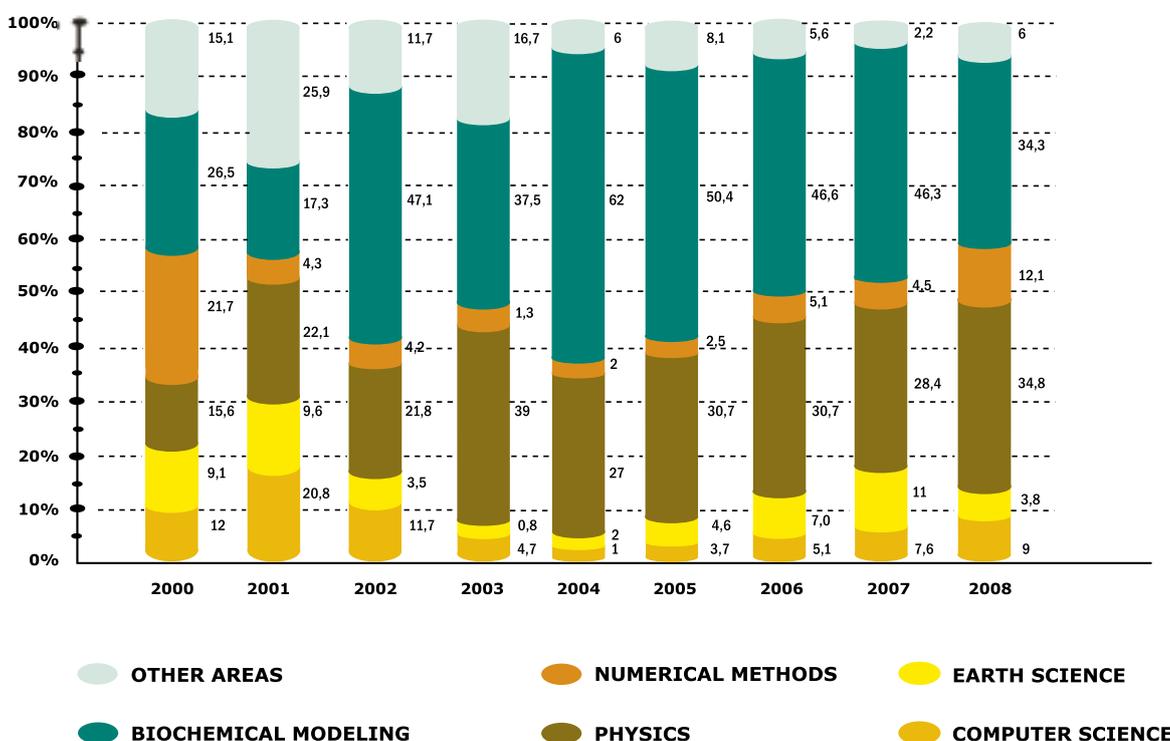


### CPU Distribution by Research Area

With respect to research areas, the computing time related to physics represents 34.8% of the consumption, surpassing for the first time biochemical modeling that represents 34.3%

(14.8% less than in 2007). These two areas account for 69.2% of the total hours consumed. It is also important to highlight the increase in the area of Computing Science since 2004.

**CPU USE DISTRIBUTION BY RESEARCH AREA**



### CPU Usage Distribution by Institution and Machine

In this graphic, we can see which of the systems are the most demanded by each one of the institutions that use the computing servers of CESGA. As can be appreciated, CSIC researchers principally utilise the FinisTerra server registering more than 40% utilisation of the system, while the SVG is shared by the researchers of the Universities of Santiago de Compostela and A Coruña. Grid systems are fundamentally used for the projects in which CESGA participates.

**CPU DISTRIBUTION BY MACHINE AND INSTITUTION 2008**

