



Cesga's Staff  
Scientific Production

# scientific production -CESGA staff- 2008

## SCIENTIFIC ARTICLES IN NON SCI JOURNALS

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- MARCO J, et al. 2008. The Interactive European Grid: Project objectives and achievements. *Computing and informatics*, vol.27. 2:161-171.
- GOMES J, et al. 2008. A grid infrastructure for parallel and interactive applications. *Computing and informatics*, vol.27. 2: 173-185.
- E BENDITO, A CARMONA, A.M. ENCINAS, JM GESTO, A GOMEZ, C. MOURIÑO, T. SANCHEZ. Computational cost of the Fekete problem I: the Forces Method on the 2-sphere, accepted by the *Journal of Computational Physics*.

## BOOKS

- BARRA C, et al. 2008. *E-Learning for Adult Patients in Hospitals. Experiences-Challenges-Recommendations (English Edition)*, Vienna, die Berater. 48 pages.
- BARRA C, et al. *E-Learning para pacientes adultos hospitalizados. Experiencias - Retos – Recomendaciones (Spanish Edition)*, Vienna, die Berater. 48 pages.
- BARRA C, et al. *e-Hospital: Experiences with E-Learning Activities for Patients (English Edition)*, Vienna, die Berater. 152 pages.
- BARRA C, et al. *e-hospital: E-Learning para pacientes hospitalizados (Spanish Edition)*, Vienna, die Berater. 156 pages.

## BOOK CHAPTERS

LÓPEZ-CABIDO, I. 2008. A computación do século XXI. In: *Dos ábacos aos computadores*. (M Bermejo Patiño, ed.), pp. 119-134. The University of Santiago de Compostela Press, Santiago de Compostela, Spain.

## PARTICIPATION IN NATIONAL AND INTERNATIONAL CONFERENCES

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### 2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE

Porto (Portugal), May 12-14, 2008

SÁNCHEZ M T, CAO R, FERNÁNDEZ J, GARCÍA-MAGARIÑOS M, GARCÍA-TORRE F, GESTO JM, GÓMEZ A, GONZÁLEZ-MANTEIGAW, GUTIÉRREZ JM.

imath.cesga.es, the VO for European mathematicians. Oral presentation.

### SECOND INTERNATIONAL CONFERENCE ON MOBILE UBIQUITOUS COMPUTING, SYSTEMS, SERVICES, AND TECHNOLOGIES

Valencia (Spain), September 29, 2008 – October 4, 2008

COTELO QUEIJO CARMEN; GÓMEZ TATO, ANDRÉS; LÓPEZ CABIDO, IGNACIO; COTOS YAÑEZ, JOSÉ MANUEL.

Adapting ROMS to Execute on GRID Using a Hybrid Parallelization Model. Oral presentation.

### 2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE

Porto (Portugal), May 12-14, 2008

DAVID MERA, JOSÉ M. COTOS, PEDRO SACO, ANDRÉS GÓMEZ.

An integrated solution to the Secure User Access in the RETELAB Grid Project using a Web System based on Portlets and a RBAC Model by means of User Attribute Certificates and PKI. Oral presentation.

### I JORNADA GALLEGA DE BIOINFORMÁTICA.

A Coruña (Spain), April 4, 2008

AURELIO RODRÍGUEZ.

CESGA and FINISTERRAE, a Bioinformatics Computing infrastructure. Oral presentation.

### II ENCUESTRO EN COMPUTACIÓN DE ALTO RENDIMIENTO EN SIMULACIONES MOLECULARES

Madrid (Spain,) June 17, 2008

AURELIO RODRÍGUEZ.

Servicios del CESGA a la Comunidad Científica del CSIC. Oral presentation.

### IBERGRID 2008 2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE

Porto (Portugal) May 12-14, 2008.

LINO GARCÍA TARRÉS, CÉSAR VEIGA, DAVID CORDERO PLACER, CARLOS FERNÁNDEZ SÁNCHEZ, PABLO REY MAYO, JAVIER LOPEZ CACHEIRO, IGNACIO LÓPEZ.

Accounting and Monitoring of Parallel and Interactive jobs in the Grid. Oral presentation.

### **XIX JORNADAS DE PARALELISMO**

Castellón (Spain) May 17-19, 2008

C. TEIJEIRO, G.L. TABOADA, J. TOURIÑO, B.B. FRAGUELA, R. DOALLO, J.C. MOURIÑO, A. GÓMEZ-TATO, I. LÓPEZ-CABIDO.

Evaluación del Rendimiento de las Comunicaciones Colectivas en UPC. Oral presentation.

### **XIX JORNADAS DE PARALELISMO**

Castellón (Spain) May 17-19, 2008

MARTA LOUREIRO, GABRIEL RODRÍGUEZ, PATRICIA GONZÁLEZ, MARÍA J. MARTÍN, J. CARLOS MOURIÑO, MARÍA TERESA SÁNCHEZ.

Tolerancia a fallos en aplicaciones reales utilizando CPPC. Oral presentation.

### **2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE**

Porto (Portugal) May 12-14, 2008

LUIS LANDESA PORRAS, JOSÉ MANUEL TABOADA VARELA, FERNANDO OBELLEIRO BASTEIRO, JOSÉ LUIS RODRÍGUEZ, JOSÉ CARLOS MOURIÑO, ANDRÉS GÓMEZ TATO. High Performance Computing Electromagnetic Challenge: Solving tens of millions of unknowns. Oral presentation.

### **XXIII SIMPOSIUM NACIONAL DE LA UNIÓN CIENTÍFICA DE RADIO**

Madrid (Spain) September 22-24, 2008

L LANDESA, J M TABOADA, F OBELLEIRO, J L RODRÍGUEZ, J MOURIÑO A GÓMEZ. FMM en problemas electromagnéticos con decenas de millones de incógnitas. Oral presentation.

### **VI IBERIAN MEETING ON COMPUTATIONAL ELECTROMAGNETICS**

Chiclana (Spain) October 22-24, 2008

L LANDESA, J M TABOADA, F OBELLEIRO, J L RODRÍGUEZ, J MOURIÑO, A GÓMEZ. Fast Multipole Methods in Supercomputers. Oral presentation.

### **2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE**

Oporto (Portugal) May 12, 2008

G BORGES, M DAVID, J GOMES, J P MARTINS, M MONTECELO, N DIAS, J LÓPEZ, A SIMÓN, E GARCÍA. Resource integration in gLite based grid infrastructures. Oral presentation.

### **2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE**

Oporto (Portugal) May 12, 2008

E FREIRE, A SIMON, J LÓPEZ, C FERNÁNDEZ, A RETICO, AND N THACKRAY.

EGEE Pre-Production service: A distributed testing cluster. Oral presentation.

### **2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE**

Oporto (Portugal) May 12, 2008

C VEIGA, C FERNÁNDEZ, L GARCÍA, D CORDERO, J LÓPEZ. Accounting and Monitoring of Parallel and Interactive Jobs in the Grid. Oral presentation.

### **EGEE '08 CONFERENCE**

Istanbul (Turkey) September 24, 2008

J LÓPEZ, E FREIRE, A SIMÓN AND A RETICO. The deployment test: How it is and how it should be. Oral presentation.

### **EGEE'08 CONFERENCE**

Estambul (Turkey) September 25, 2008

PKUNSZT, J LÓPEZ, E FREIRE, A SIMÓN, S DÍAZ, C FERNÁNDEZ, ETAL.

Production sites best practices. Oral presentation.

### **JORNADAS TÉCNICAS DE RedIRIS**

Madrid (Spain) August 21, 2008

C F IGLESIAS. Proyecto Formiga, Reaprovechando recursos para la investigación. Oral presentation.

### **ARM 11**

Lyon (France) February 5-6, 2008

PABLO REY, JOHN GORDON. Accounting & Accounting Portal developments. Oral presentation.

### **GDB MEETING**

Geneva (Switzerland) February 6, 2008

PABLO REY. Accounting in EGEE/WLCG. Oral presentation.

### **COD-15**

Lyon (France) February 6-8, 2008

PABLO REY. Accounting Portal. Oral presentation.

#### **HP-CAST 10**

Singapur. May 19-22, 2008

CARLOS FERNÁNDEZ. "Finis Terrae" (End of the Earth) Experiences with a Very Large Itanium Site in Production. Oral presentation.

#### **CESGA-FINIS TERRAE COMPUTATIONAL SCIENCE CONFERENCE 2008**

Santiago de Compostela (Spain) June 12, 2008

CARLOS FERNÁNDEZ. Using Finis Terrae. Oral presentation.

#### **GRID OPEN DAY**

Poznan (Poland) April 25, 2008

LINO GARCÍA. e-IMRT. Oral presentation.

#### **EELA2 KoM**

Trujillo (Spain) April 23, 2008

JAVIER LÓPEZ. CESGA. Oral presentation.

#### **EGEE'08 SA3 ALL HANDS MEETING**

Prague (Czech Republic) March 11, 2008

E FREIRE, A SIMON, J LÓPEZ. CESGA-SA3 Status Report. Oral presentation.

#### **EGEE'08 USER FORUM 3**

Clermont Ferrand (France) February 11, 2008

E FREIRE, A SIMON, J LÓPEZ, C FERNÁNDEZ, A RETICO, N THACKRAY. Advantages of Pre-Production WLCG/EGEE services for VOs and Users. Oral presentation.

#### **EGEE'08 SA3 ALL HANDS MEETING**

Cern (Switzerland) May 12, 2008

E FREIRE, A SIMON, J LÓPEZ. CESGA-SA3 Status Report. Oral presentation.

#### **2<sup>ND</sup> IBERIAN GRID INFRASTRUCTURE CONFERENCE**

Oporto (Portugal) May 12, 2008

S DIAZ, S REYES, A NIÑO AND C MUÑOZ-CARO. A General Approach to the Analysis and Design of Grid Portals for Scientific Virtual Organizations. Oral presentation.

#### **EGEE'08 CONFERENCE**

Istanbul (Turkey) September 22-26, 2008

S.DIAZ, P.REY, J.LOPEZ, C.FERNÁNDEZ, J. GORDON, C. DEL-CANO. Intra-VO and individual user accounting in EGEE. Demonstration.

#### **VECPAR'08**

Toulouse (France) June 24-27, 2008

L. GARCÍA, E. GUARDIA, J. CASURELLAS. The Impact of Virtualization on Grid Parallel Molecular Dynamics Simulations. Oral presentation.

#### **EDUTEC 08**

Santiago de Compostela (Spain) September 1-5, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS. T-Learning: e-learning al alcance de todos. Oral presentation.

#### **EDUTEC 08**

Santiago de Compostela (Spain) September 1-5, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS. Formación, adultos hospitalizados y tecnologías: el e-learning necesario. Oral presentation.

#### **EDUTEC 08**

Santiago de Compostela (Spain) September 1-5, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS.

Proyecto EFELCREN: Ejemplos de buenas prácticas de materiales de e-learning. Oral presentation.

#### **EDUTEC 08**

Santiago de Compostela (Spain) September 1-5, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS.

Proyecto e-Hospital: formación de pacientes adultos hospitalizados. Oral presentation.

#### **EDUTEC 08**

Santiago de Compostela (Spain) September 1-5, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS.

Las TIC como apoyo para la intervención indirecta en la calidad de vida familiar de las personas con diversidad funcional. Oral presentation.

#### **V CONGRESO INTERNACIONAL DE PSICOLOGÍA Y EDUCACIÓN: LOS RETOS DEL FUTURO**

Oviedo (Spain) April 23-25, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS.

La atención familiar en la búsqueda de apoyos y calidad de vida a través de las TIC en las personas con diversidad funcional. Oral presentation.

#### **V CONGRESO INTERNACIONAL DE PSICOLOGÍA Y EDUCACIÓN: LOS RETOS DEL FUTURO**

Oviedo (Spain) April 23-25, 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS. Software libre al servicio de las personas con diversidad funcional. Oral presentation.

#### **CONGRESO NACIONAL INTERNET EN EL AULA. LA IMPORTANCIA DE LAS TIC EN LAS AULAS.**

Virtual Conference January 2004-October 2008

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS. Diversidad Funcional y Tecnologías de la Información y Comunicación. Oral presentation.

#### **REPORTS**

AURELIO RODRÍGUEZ, MARIO VALLE, UGO VARETTO

Quantum Chemistry common data format Q5COST and OpenBabel: A first answer to interoperability in Quantum Chemistry. 31 pages. Technical report, CESGA.

SERGIO BERNARDI (CINECA), CLAUDIO CACCIARI (CINECA), FRANCESCO D'ANDRIA (ATOS), ROBERTO D'IPPOLITO (LMS), HENNING EICKENBUSCH (ANSYS), NAJI EL MASRI (LMS), ANDRÉS GÓMEZ (CESGA), BJÖRN HAGEMEIERS (FZJ), JIADAO LI (FZJ), DANIEL MALLMANN (FZJ), JOSEP MATRAT SOTIL (ATOS), JOSE CARLOS MOURIÑO GALLEGO (CESGA), ANGELA RUMPL (SCAI), EBERHARD SEKLER (INTES), CHRISTIAN SIMMENDINGER (T-SYSTEMS), DEVARAJAN SUBRAMANIAN

(GRIDCORE), WOLFGANG ZIEGLER (SCAI), CSILLA ZSIGRI (451 GROUP)

SmartLM Deliverable D1.1: Functional requirements of the new licensing architecture for Grids. 102 pages. Deliverable (technical document).

#### **THESES and SIMILAR DOCUMENTS:**

##### **MASTER DEGREE TRAINING**

JOSÉ ANTONIO LÓPEZ LÓPEZ

Aspectos Médico-Biológicos y Físicos de la Radioterapia como Tratamiento del Cáncer. Modelo Determinista para el Cálculo de la Dosis Absorbida.

University of Santiago de Compostela, July 17, 2008

Directors: Óscar López Pouso (USC), Andrés Gómez Tato (CESGA), María González Taboada (UDC)

DAMIÁN ÁLAVAREZ MALLÓN

Análisis Técnica de Rendimiento de Sistemas HPC

Universidad da Coruña, September 15, 2008.

Director: Andrés Gómez Tato

##### **MASTER/DEA**

SERGIO DÍAZ MONTES

Official Masters: Tecnologías Informáticas Avanzadas

UCLM, July 9, 2008.

Director: Camelia Muñoz Caro and Alfonso Niño Ramos

#### **TEACHING**

##### **MASTER DEGREE PROFESSOR**

CARLOS FERNÁNDEZ SÁNCHEZ

Master in Mathematical Engineering

USC, UDC, UVigo. February, 2008.

MANUEL GROMAZ CAMPOS

Master in e-learning,

UOC, 2008.

## OTHER COURSES

AURELIO RODRÍGUEZ

Introduction to computational chemistry codes at CESGA (Gaussian, GAMESS, NWCHEM)  
CESGA, Santiago de Compostela, December 15, 2008

JAVIER LÓPEZ CACHEIRO

GRID and e-Science  
IFIC, July 17, 2008.

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS, BRUNO RUBIO GAYO, MIGUEL BERMEJO  
An OpenOffice suite in Galician. Teaching and didactic uses.  
Galician Regional Ministry of Education, 2008.

MARÍA JOSÉ RODRÍGUEZ MALMIERCA

MATHDI: Didactic Mathematics Database  
Galician Regional Ministry of Education, 2008.

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS

Experto en eLearning: Tecnologías y Métodos de Formación en Red.  
University of Salamanca, 2008.

MANUEL GROMAZ CAMPOS

Recursos multimedia para la enseñanza de idiomas  
Centro de Formación y Recursos de Lugo, 2008.

MARÍA JOSÉ RODRÍGUEZ MALMIERCA Y MANUEL GROMAZ CAMPOS

Diseño de contenidos didácticos para sistemas de gestión del aprendizaje acorde a estándares internacionales a través de la utilización de herramientas de autor de software libre o gratuitas.  
Centro de Formación y Recursos de Santiago, 2008.

## SCIENTIFIC DISSEMINATION

**Conference participation: COMPUTACIÓN GRID EN LA EMPRESA**

ANDRÉS GÓMEZ TATO

The improvement of IMRT radiotherapy treatment planning using on demand GRID services. Parque Tecnológico de Álava-Miñano. September 2008.

**Conference participation: CESGA-FINIS TERRAE COMPUTATIONAL SCIENCE CONFERENCE 2008**

ANDRÉS GÓMEZ TATO

Finis Terrae: Tools and Applications  
Santiago de Compostela (Spain), June 12, 2008.

**Conference participation: CESGA-FINIS TERRAE COMPUTATIONAL SCIENCE CONFERENCE 2008**

AURELIO RODRÍGUEZ

Finis Terrae Computing Challenges  
Santiago de Compostela (Spain), June 12, 2008.

**Conference participation: COMPUTACIÓN GRID EN LA EMPRESA**

COMPUTACIÓN GRID EN LA EMPRESA

CARLOS FERNÁNDEZ SÁNCHEZ

CESGA: 10 years of Grid Services  
Centro de Supercomputación de Galicia: 10 años de servicios Grid  
Álava (Spain), September 16, 2008.

**Conference participation: CESGA-FINIS TERRAE COMPUTATIONAL SCIENCE CONFERENCE 2008**

JOSÉ IGNACIO LÓPEZ CABIDO

Finis Terrae Architecture  
Santiago de Compostela (Spain), June 12, 2008.

**Conference participation: IIR – TELEPRESENCE**

NATALIA COSTAS LAGO

BEST PRACTICE-The practical experience of CESGA.  
Collaboration tools for research and teaching environments.  
Madrid (Spain). September 30, 2008.

#### Conference participation: IIR - DATACENTER 2008

JOSÉ IGNACIO LÓPEZ CABIDO

Adjusting CESGA's Data Centre for the housing of the Finis Terrae Supercomputer.

Madrid (Spain). November 18, 2008.

#### Conference organisation: EDUTEC 08

MARÍA JOSÉ RODRÍGUEZ MALMIERCA

MANUEL GROMAZ CAMPOS

EDUTEC 08

Santiago de Compostela (Spain), May 1, 2008.

#### Conference participation: INFORENSINO 2008

MANUEL GROMAZ CAMPOS

CESGA e-learning research and innovation projects.

Proyectos de investigación e innovación en el área de e-learning del CESGA.

Lugo (Spain), September 12-14, 2008.

#### Conference organisation: SPEDECE '08

V PLURIDISCIPLINARY SYMPOSIUM ON DESIGN AND EVALUATION OF REUSABLE EDUCATIONAL CONTENTS (SPEDECE '08)

MANUEL GROMAZ CAMPOS

Alcalá de Henares (Spain), October 20-21, 2008.

#### DISSEMINATION ARTICLES

AURELIO RODRÍGUEZ. 2008. MODULES: Configuración rápida do contorno dunha aplicación. Díxitos, Nov-08:12.

ANDRES GÓMEZ. 2008. Finis Terrae: Tools and Applications. Díxitos, Jul-08: 7.

ANDRÉS GÓMEZ, MARÍA TERESA SÁNCHEZ RÚA. 2008. Achegando as Matemáticas ao Grid. Díxitos, Feb-08:7.

JAVIER LÓPEZ CAHEIRO, AURELIO RODRÍGUEZ LÓPEZ. 2008. G-Fluxo: Un proxecto que simplificará o uso do Finis Terrae. Díxitos, Feb-08: 11.

MANUEL GROMAZ CAMPOS, MARÍA JOSÉ RODRÍGUEZ

MALMIERCA, MANOEL BAÑA CASTRO, BEATRIZ LÓPEZ GONZÁLEZ, JAVIER GARCÍA TOBÍO. 2008. Software libre y Diversidad Funcional. Quaderns Digitals, Feb-00:1-12.

MARÍA JOSÉ RODRÍGUEZ MALMIERCA, MANUEL GROMAZ CAMPOS, CARMEN FERNÁNDEZ MORANTE, BEATRIZ CEBREIRO LÓPEZ, JAVIER GARCÍA TOBÍO. 2008.

E-learning para e-inclusión: el proyecto e-hospital. Quaderns Digitals, Feb-00:1-12.

AAVV. 2008. Observatorio gallego de e-learning: El estado del e-learning en la universidad gallega. Revista Galega de Educación, 41.

MANUEL GROMAZ CAMPOS, MARÍA JOSÉ RODRÍGUEZ MALMIERCA, JOSÉ MANUEL ABUÍN MOSQUERA, JAVIER GARCÍA TOBÍO. 2008. Formación continua mediante b-learning a profesionales de recursos humanos de las PYMES en Europa: El Proyecto YES. Quaderns Digitals, Feb-00: 1-13.

MANUEL GROMAZ CAMPOS, MARÍA JOSÉ RODRÍGUEZ MALMIERCA, JAVIER GARCÍA TOBÍO. 2008. Experiencias exitosas de e-learning en la universidad gallega. Pixel-Bit, 33: 173-182.

#### RESEARCH VISITS

MARTA GONZÁLEZ BUGUEIRO.

SLA Negotiation and GridWay Integration  
Universidad Complutense de Madrid (Spain), 17 November 17-28, 2008.

#### AWARDS

Centro de Supercomputación de Galicia, CESGA Foundation  
APPLUS+ Prize for Excellence in Quality Management.  
APPLUS+  
Santiago de Compostela (Spain), 2008.