



Jordi Isern Vilaboy

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Jordi Isern Vilaboy

Surname(s): **Isern Vilaboy**
Name: **Jordi**
Date of birth: **10/06/1950**
Gender: **Male**
Nationality: **Spain**
Country of birth: **Spain**
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Current professional situation

Name of institution: Institut Estudis Espacials de Catalunya **Type of institution:** Foundation

Department, service, etc.: Institut Estudis Espacials de Catalunya

Category/position or post: Director

Start date: 06/02/1996

Type of contract: Statutory

Type of dedication: Full time

Primary (UNESCO code): 210115 - X-ray sources; 250000 - Earth and space sciences

Current professional activity: Director

Activity keywords: Space science

Name of institution: CSIC

Type of institution: State agency

Department, service, etc.: Institut de Ciències de l'Espai

Category/position or post: Profesor de Investigación CSIC

Start date: 28/02/1986

Type of contract: Civil servant

Type of dedication: Full time

Primary (UNESCO code): 210110 - Stars

Secondary (UNESCO code): 210113 - Super-novae

Current professional activity: Profesor de Investigación CSIC

Activity keywords: Space science; Physics

Previous posts and activities

	Name of institution	Category/position or post	Start date
1	Universitat de Barcelona	Profesor Titular Universidad	11/06/1984
2	Universitat de Barcelona	Profesor Agregado Interino	01/09/1983
3	Universitat Politècnica de Catalunya	Profesor Encargado de Curso	01/09/1976
4	Universitat de Barcelona	Profesor Encargado de Curso	01/09/1974

1 Name of institution: Universitat de Barcelona

Category/position or post: Profesor Titular Universidad

Start date: 11/06/1984

Duration: 1 year - 8 months - 19 days

2 Name of institution: Universitat de Barcelona

Category/position or post: Profesor Agregado Interino

Start date: 01/09/1983

Duration: 1 year

3 Name of institution: Universitat Politècnica de Catalunya

Category/position or post: Profesor Encargado de Curso

Start date: 01/09/1976

Duration: 1 year - 12 months - 4 days

4 Name of institution: Universitat de Barcelona

Category/position or post: Profesor Encargado de Curso

Start date: 01/09/1974

Duration: 4 year

Official training received

University education

University degrees, engineering degrees or master's degrees

Name of qualification: Ciencias Físicas
institution issuing the qualification: Universitat de Barcelona
Date of qualification: 05/07/1972

Doctorates

Doctorate programme: Ciencias Físicas
University issuing the qualification: Barcelona University
Date of qualification: 18/09/1972

Language skills

Language	Speaking	Reading	Writing
English	Advanced	Advanced	Advanced
Catalan	Advanced	Advanced	Advanced
Spanish	Advanced	Advanced	Advanced
French	Advanced	Advanced	Advanced

Teaching activity

Supervision of dissertations and/or final projects

- 1 Project title:** Evolució quimiodinàmica de la Galàxia
University issuing the qualification: Universitat de Barcelona
Doctorate student: Artigas, A.
Date of reading: 16/11/2010
- 2 Project title:** Gamma Ray Emission from Type Ia Supernovae
University issuing the qualification: Universitat Politècnica de Catalunya
Doctorate student: Hirschmann, A.
Date of reading: 03/07/2009
- 3 Project title:** Gravitational wave radiation from single and binary white dwarfs
University issuing the qualification: Universitat Politècnica de Catalunya
Doctorate student: Lorén-Aguilar, P.
Date of reading: 30/04/2009

- 4** **Project title:** Testing the initial-final mass relationship of white dwarfs
University issuing the qualification: Universitat Politècnica de Catalunya
Doctorate student: Catalán, S.
Date of reading: 13/03/2008
- 5** **Project title:** Col·lisions d'objectes compactes amb SPH
University issuing the qualification: Universitat de Barcelona
Type of institution: University
Doctorate student: Josep Guerrero Solé
Date of reading: 05/12/2001
- 6** **Project title:** Structure and evolution of stars in the low main sequence
University issuing the qualification: Universitat de Barcelona
Doctorate student: Aparicio, J. M.
Date of reading: 01/02/1994
- 7** **Project title:** Modelos de curva de luz de las supernovas de tipo Ia
University issuing the qualification: Universitat de Barcelona
Doctorate student: Domínguez, I.
Date of reading: 01/02/1991
- 8** **Project title:** Nucleosíntesis y curvas de luz de las supernovas de tipo Ia
University issuing the qualification: Universitat de Barcelona
Doctorate student: Bravo, E.
Date of reading: 01/02/1991
- 9** **Project title:** El diagrama de fases del plasma de carbono-oxígeno y la función de luminosidad de las enanas blancas
University issuing the qualification: Universitat de Barcelona
Doctorate student: García-Berro, E.
Date of reading: 01/02/1990
- 10** **Project title:** Influencia de la solidificación en la desestabilización de enanas blancas pertenecientes a sistemas estelares dobles
University issuing the qualification: Universitat de Barcelona
Doctorate student: Hernanz, M.
Date of reading: 03/02/1986
- 11** **Project title:** Modelos de curva de luz de las supernovas de tipo I
University issuing the qualification: Universitat de Barcelona
Doctorate student: López-Hermoso, Rosario
Date of reading: 01/02/1985

Experience in science and technology

Scientific or technological activity

Participation in R&D&I projects funded in competitive calls by public or private bodies

- 1 Name of the project:** Desarrollo y explotación de la misión LISAPathfinder y contribuciones al universo gravitatorio y STE-QUEST
Institution where project took place: Institut d'Estudis Espacials de Catalunya
City: Barcelona, Catalonia, Spain
Head(s) researcher(s): Carlos Fernández Sopena; Jordi Isern Vilaboy
Number of researchers: 10
Start-End date: 01/01/2014 - 31/12/2015
Type of institution: Foundation
- 2 Name of the project:** Astrofísica espacial estel·lar i planetària
Head(s) researcher(s): Ignasi Ribas
Funding institution or bodies: AGAUR
Start-End date: 01/09/2009 - 31/08/2014
Duration of the project: 5 years
Total amount: 42,64
- 3 Name of the project:** LA FRONTERA DEL MEV: UN RETO PARA LA INSTRUMENTACION Y UNA VENTANA INDISPENSABLE PARA EL ESTUDIO DE LAS EXPLOSIONES ESTELARES
Head(s) researcher(s): Margarita Hernanz
Funding institution or bodies: MICINN
Start-End date: 01/01/2012 - 31/12/2013
Duration of the project: 2 years
Total amount: 484
- 4 Name of the project:** Física de los objetos compactos: II, condiciones iniciales y diagnóstico de la explosión
Head(s) researcher(s): Jordi Isern
Funding institution or bodies: MICINN
Start-End date: 01/07/2010 - 30/06/2013
Duration of the project: 3 years
Total amount: 110
- 5 Name of the project:** Astrofísica de rayos gamma en el rango del MeV: un reto para la instrumentación y una ventana indispensable para la astrofísica nuclear
Head(s) researcher(s): Margarita Hernanz
Funding institution or bodies: MICINN
Start-End date: 01/01/2009 - 31/03/2012
Duration of the project: 3 years - 2 months - 29 days
Total amount: 617,1

6 Name of the project: Cosmology and Astrophysics in Higher Order Gravity

Head(s) researcher(s): Emilio Elizalde

Start-End date: 01/04/2009 - 31/03/2011

Duration of the project: 1 year - 12 months - 4 days

Total amount: 16,65

7 Name of the project: Plano focal de Cd(Zn)Te para un telescopio de rayos gamma

Institution where project took place: University of Coimbra (Portugal)

Head(s) researcher(s): Margarita Hernanz

Funding institution or bodies:

MICINN, Acciones Integradas Hispano-Portuguesas

Start-End date: 01/01/2009 - 31/12/2010

Duration of the project: 1 year - 12 months - 4 days

Total amount: 8,5

8 Name of the project: Preparación de la participación española en la misión Gamma-Ray Imager:
astronomía gamma de alta precisión

Head(s) researcher(s): Margarita Hernanz

Funding institution or bodies:

MEC Plan Nacional del Espacio

Start-End date: 01/10/2007 - 31/12/2008

Duration of the project: 1 year - 3 months - 2 days

Total amount: 196,38

9 Name of the project: Antarctic Research, a European Network for Astrophysics

Role: Researcher

Institution where project took place: UNSA

Head(s) researcher(s): Epchtein, N.

Funding institution or bodies:

European Commission - Research Directorate-General, FP6

Start-End date: 01/01/2006 - 31/12/2008

Duration of the project: 3 years

Total amount: 1.355.600

Sub-project amount: 50.000

Dedication: Part time

10 Name of the project: Astrofísica estelar espacial

Head(s) researcher(s): Margarita Hernanz

Funding institution or bodies:

AGAUR

Start-End date: 22/12/2005 - 21/12/2008

Duration of the project: 3 years

Total amount: 42.200

11 Name of the project: Aprovechamiento científico de INTEGRAL, XMM-Newton y Chandra y viabilidad de futuras misiones de astronomía gamma : estudio de la combustión termonuclear en estrellas compactas

Head(s) researcher(s): Margarita Hernanz

Funding institution or bodies:

MEC (Plan Nacional Astronomía y Astrofísica)

Start-End date: 28/12/2004 - 27/12/2007

Duration of the project: 2 years - 12 months - 4 days

Total amount: 144

- 12 Name of the project:** Telescopio IRAIT: diseño y construcción de los sistemas ópticos secundario y terciario
Institution where project took place: University of Granada **Type of institution:** University
Head(s) researcher(s): Carlos Abia; Inmaculada Domínguez; Jordi Isern Vilaboy
Number of researchers: 3
Funding institution or bodies: Ministry of Education and Science
Start-End date: 01/12/2004 - 01/12/2005 **Duration of the project:** 1 year
Total amount: 140.000
- 13 Name of the project:** Estudio del subsistema de diagnóstico y procesador en la misión LISA Pathfinder
Head(s) researcher(s): José Alberto Lobo
Funding institution or bodies: Ministerio de Ciencia y Tecnología (MCyT)
Start-End date: 04/06/2004 - 03/06/2005 **Duration of the project:** 12 months - 4 days
Total amount: 200.000
- 14 Name of the project:** LENTE DE FOCALIZACION DE RAYOS GAMMA CLAIRE: REALIZACION DE UN ENSAYO DE CALIBRACION
Head(s) researcher(s): Margarita Hernanz
Funding institution or bodies: Ministerio de Educación, Política Social y Deporte **Type of institution:** State agency
Start-End date: 07/04/2004 - 06/04/2005 **Duration of the project:** 12 months - 4 days
Total amount: 12
- 15 Name of the project:** ESTUDIOS PRELIMINARES PARA LA PARTICIPACION ESPAÑOLA EN LA MISION LISA
Head(s) researcher(s): José Alberto Lobo
Funding institution or bodies: Ministerio de Ciencia y Tecnología (MCyT)
Start-End date: 06/05/2003 - 05/05/2004 **Duration of the project:** 1 year
Total amount: 20.000
- 16 Name of the project:** Problemas actuales de la Astrofísica Numérica
Institution where project took place: Keldysh Institute (Russia)
Head(s) researcher(s): Jordi Isern Vilaboy
Funding institution or bodies: INTAS (EU)
Start-End date: 01/01/1998 - 31/12/1999 **Duration of the project:** 1 year - 12 months - 4 days
Total amount: 0

Participation in R&D&I non-competitive projects, contracts or agreements with administrations or public or private bodies

Name of the project: Observatori Astronòmic del Montsec

Role: Coordinator of total project, network or consortium

Head researcher: Jordi Isern Vilaboy; Xavier Palau; Ignasi Ribas; Jordi Torra Roca

Number of researchers: 20

Participating bodies: CSIC; Fundació Oró; Institut d'Estudis Espacials de Catalunya; Universitat Politècnica de Catalunya; Universitat de Barcelona

Funding institution or bodies:

Direcció General de Recerca

Type of institution: Generalitat Catalunya

City: Barcelona, Catalonia, Spain

Start date: 01/03/2007

Total amount: 572

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** M. M. Miller Bertolami. Revisiting the axion bounds from the Galactic white dwarf luminosity function. JCAP. 10, pp. 69. 10/2014.

Type of production: Article

Format: Journal

- 2** I.~G. {Irastorza}; F.~T. {Avignone}; G. {Cantatore}; J.~M. {Carmona}; S. {Caspi}; S.~A. {Cetin}; F.~E. {Christensen}; A. {Dael}; T. {Dafni}; M. {Davenport}; A.~V. {Derbin}; K. {Desch}; A. {Diago}; B. {D{\'o}brich}; A. {Dudarev}; C. {Eleftheriadis}; G. {Fanourakis}; E. {Ferrer-Ribas}; J. {Gal{\'a}n}; J.~A. {Garc{\'i}a}; J.~G. {Garza}; T. {Gerais}; B. {Gimeno}; I. {Giomataris}; S. {Gninenko}; H. {G{\'o}mez}; E. {Guendelman}; C.~J. {Hailey}; T. {Hiramatsu}; D.~H.~H. {Hoffmann}; D. {Horns}; F.~J. {Iguaz}; J. {Isern}; A.~C. {Jakobsen}; J. {Jaeckel}; K. {Jakov{\v c}{i}{c}}; J. {Kaminski}; M. {Kawasaki}; M. {Kr{\v c}mar}; C. {Krieger}; B. {Laki{\c}}; A. {Lindner}; A. {Liolios}; G. {Luz{\o}n}; I. {Ortega}; T. {Papaevangelou}; M.~J. {Pivovarov}; G. {Raffelt}; J. {Redondo}; A. {Ringwald}; S. {Russenschuck}; J. {Ruz}; K. {Saikawa}; I. {Savvidis}; T. {Sekiguchi}; I. {Shilon}; P. {Sikivie}; H. {Silva}; H. {ten Kate}; A. {Tomas}; S. {Troitsky}; T. {Vafeiadis}; K. {van Bibber}; P. {Vedrine}; J.~A. {Villar}; J.~K. {Vogel}; L. {Walckiers}; W. {Wester}; S.~C. {Yildiz}; K. {Zioutas}. Future axion searches with the International Axion Observatory (IAXO). Journal of Physics Conference Series. 460 - 1, pp. 012002 - 012002. 10/2013.

Type of production: Article

Format: Journal

- 3** G. {Aznar-Sigu{\'a}n}; E. {Garc{\'i}a-Berro}; P. {Lor{\'e}n-Aguilar}; J. {Jos{\'e}}; J. {Isern}. Detonations in white dwarf dynamical interactions. MNRAS. 434, pp. 2539 - 2555. 09/2013.

Type of production: Article

Format: Journal

- 4** H.~K. {Dreiner}; J.-F. {Fortin}; J. {Isern}; L. {Ubaldi}. White dwarfs constrain dark forces. \prd. 88 - 4, pp. 043517 - 043517. 08/2013.

Type of production: Article

Format: Journal

- 5** Kulebi, B.; Ekici, K. Y.; Lorén-Aguilar, P.; Isern, J.; García-Berro, E. Magnetic white dwarfs with debris discs. *Monthly Notices of the Royal Astronomical Society*. 431, pp. 2778 - 2788. 01/05/2013.
Type of production: Article **Format:** Scientific and technical document or report
- 6** Isern, J.; Jean, P.; Bravo, E.; Diehl, R.; Knödseder, J.; Domingo, A.; Hirschmann, A.; Hoeflich, P.; Lebrun, F.; Renaud, M.; Soldi, S.; Elias-Rosa, N.; Hernanz, M.; Kulebi, B.; Zhang, X.; Badenes, C.; Domínguez, I.; García-Senz, D.; Jordi, C.; Lichti, G.; Vedrenne, G.; Von Ballmoos, P. Observation of SN2011fe with INTEGRAL. I. Pre-maximum phase. *Astronomy and Astrophysics*. 552, pp. A97 - 0. 01/04/2013.
Type of production: Article **Format:** Scientific and technical document or report
- 7** Córscico, A. H.; Althaus, L. G.; Romero, A. D.; Mukadam, A. S.; García-Berro, E.; Isern, J.; Kepler, S. O.; Corti, M. A. An independent limit on the axion mass from the variable white dwarf star R548. *Journal of Cosmology and Astroparticle Physics*. 12, pp. 10 - 0. 01/12/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 8** Córscico, A. H.; Althaus, L. G.; Miller Bertolami, M. M.; Romero, A. D.; García-Berro, E.; Isern, J.; Kepler, S. O. The rate of cooling of the pulsating white dwarf star G117-B15A: a new asteroseismological inference of the axion mass. *Monthly Notices of the Royal Astronomical Society*. 424, pp. 2792 - 2799. 01/08/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 9** von Ballmoos, P.; Alvarez, J.; Barrière, N.; Boggs, S.; Bykov, A.; Del Cura Velayos, J. M.; Frontera, F.; Hanlon, L.; Hernanz, M.; Hinglais, E.; Isern, J.; Jean, P.; Knödseder, J.; Kuiper, L.; Leising, M.; Pirard, B.; Prost, J. -.; da Silva, R. M. C.; Takahashi, T.; Tomsick, J.; Walter, R.; Zoglauer, A. A DUAL mission for nuclear astrophysics. *Experimental Astronomy*. pp. 24 - 0. 01/04/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 10** Charbonnel, C.; Limongi, M.; D'Antona, F.; Fontaine, G.; Isern, J.; Lattanzio, J. C.; Leitherer, C.; van Loon, J. T.; Weiss, A.; Youngelson, L. R. Commission 35: Stellar Constitution. *Transactions of the International Astronomical Union, Series A*. 28, pp. 161 - 189. 01/04/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 11** García-Berro, E.; Lorén-Aguilar, P.; Aznar-Siguán, G.; Torres, S.; Camacho, J.; Althaus, L. G.; Córscico, A. H.; Kulebi, B.; Isern, J. Double Degenerate Mergers as Progenitors of High-field Magnetic White Dwarfs. *Astrophysical Journal*. 749, pp. 25 - 0. 01/04/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 12** Althaus, L. G.; García-Berro, E.; Isern, J.; Córscico, A. H.; Miller Bertolami, M. M. New phase diagrams for dense carbon-oxygen mixtures and white dwarf evolution. *Astronomy and Astrophysics*. 537, pp. A33 - 0. 01/01/2012.
Type of production: Article **Format:** Scientific and technical document or report
- 13** Isern, J.; Bravo, E.; Knödseder, J.; Diehl, R.; Domingo, A.; Hirschmann, A.; Hoeflich, P.; Elias-Rosa, N.; Hernanz, M.; Zhang, X.; Badenes, C.; Domínguez, I.; Kulebi, B.; García, D.; Jordi, C.; Lichti, G.; Vedrenne, G.; von Ballmoos, P. Constraints on the gamma-ray emission of SN 2011fe after the maximum of light as obtained by INTEGRAL/SPI. *The Astronomer's Telegram*. 3822, pp. 1 - 0. 01/12/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 14** Bravo, E.; Piersanti, L.; Domínguez, I.; Straniero, O.; Isern, J.; Escartin, J. A. Type Ia supernovae and the $^{12}\text{C}+^{12}\text{C}$ reaction rate. *Astronomy and Astrophysics*. 535, pp. A114 - 0. 01/11/2011.
Type of production: Article **Format:** Scientific and technical document or report

- 15** Isern, J.; Jean, P.; Bravo, E.; Knodlseder, J.; Diehl, R.; Hirschmann, A.; Elias-Rosa, N.; Hernanz, M.; Badenes, C.; Dominguez, I.; Kulebi, B.; Garcia, D.; Jordi, C.; Lichti, G.; Vedrenne, G.; von Ballmoos, P. Bounds to the gamma-ray flux emitted by SN 2011fe before the maximum of light as obtained by INTEGRAL/SPI. *The Astronomer's Telegram*. 3683, pp. 1 - 0. 01/10/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 16** García-Berro, E.; Torres, S.; Renedo, I.; Camacho, J.; Althaus, L. G.; Córscico, A. H.; Salaris, M.; Isern, J. The white-dwarf cooling sequence of NGC 6791: a unique tool for stellar evolution. *Astronomy and Astrophysics*. 533, pp. A31 - 0. 01/09/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 17** Longland, R.; Lorén-Aguilar, P.; José, J.; García-Berro, E.; Althaus, L. G.; Isern, J. Nucleosynthesis during the Merger of White Dwarfs and the Origin of R Coronae Borealis Stars. *Astrophysical Journal Letters*. 737, pp. L34 - 0. 01/08/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 18** Feroci, M.; Stella, L.; van der Klis, M.; Courvoisier, T. J. -; Hernanz, M.; Hudec, R.; Santangelo, A.; Walton, D.; Zdziarski, A.; Barret, D.; Belloni, T.; Braga, J.; Brandt, S.; Budtz-Jørgensen, C.; Campana, S.; den Herder, J. -; Huovelin, J.; Israel, G. L.; Pohl, M.; Ray, P.; Vacchi, A.; Zane, S.; Argan, A.; Attinà, P.; Bertuccio, G.; Bozzo, E.; Campana, R.; Chakrabarty, D.; Costa, E.; de Rosa, A.; Del Monte, E.; di Cosimo, S.; Donnarumma, I.; Evangelista, Y.; Haas, D.; Jonker, P.; Korpela, S.; Labanti, C.; Malcovati, P.; Mignani, R.; Muleri, F.; Rapisarda, M.; Rashevsky, A.; Rea, N.; Rubini, A.; Tenzer, C.; Wilson-Hodge, C.; Winter, B.; Wood, K.; Zampa, G.; Zampa, N.; Abramowicz, M. A.; Alpar, M. A.; Altamirano, D.; Alvarez, J. M.; Amati, L.; Amoros, C.; Antonelli, L. A.; Artigue, R.; Azzarello, P.; Bachetti, M.; Baldazzi, G.; Barbera, M.; Barbieri, C.; Basa, S.; Baykal, A.; Belmont, R.; Boirin, L.; Bonvicini, V.; Burderi, L.; Bursa, M.; Cabanac, C.; Cackett, E.; Caliandro, G. A.; Casella, P.; Chaty, S.; Chenevez, J.; Coe, M. J.; Collura, A.; Corongiu, A.; Covino, S.; Cusumano, G.; D'Amico, F.; Dall'Osso, S.; de Martino, D.; de Paris, G.; di Persio, G.; di Salvo, T.; Done, C.; Dovv ciak, M.; Drago, A.; Ertan, U.; Fabiani, S.; Falanga, M.; Fender, R.; Ferrando, P.; Della Monica Ferreira, D.; Fraser, G.; Frontera, F.; Fuschino, F.; Gálvez, J.; Gandhi, P.; Giommi, P.; Godet, O.; Göv gü`c s, E.; Goldwurm, A.; Götz, D.; Grassi, M.; Guttridge, P.; Hakala, P.; Henri, G.; Hermsen, W.; Horak, J.; Hornstrup, A.; in't Zand, J. J. M.; Isern, J.; Kalemci, E.; Kanbach, G.; Karas, V.; Kataria, D.; Kennedy, T.; Klochkov, D.; Klu`zniak, W.; Kokkotas, K.; Kreykenbohm, I.; Krolik, J.; Kuiper, L.; Kuvvetli, I.; Kylafis, N.; Lattimer, J. M.; Lazzarotto, F.; Leahy, D.; Lebrun, F.; Lin, D.; Lund, N.; Maccarone, T.; Malzac, J.; Marisaldi, M.; Martindale, A.; Mastrogiuseppe, M.; McClintock, J.; McHardy, I.; Mendez, M.; Mereghetti, S.; Miller, M. C.; Mineo, T.; Morelli, E.; Morsink, S.; Motch, C.; Motta, S.; Muñoz-Darias, T.; Naletto, G.; Neustroev, V.; Nevalainen, J.; Olive, J. F.; Orio, M.; Orlandini, M.; Orleanski, P.; Ozel, F.; Pacciani, L.; Paltani, S.; Papadakis, I.; Papitto, A.; Patruno, A.; Pellizzoni, A.; Petrálv cek, V.; Petri, J.; Petrucci, P. O.; Philips, B.; Picolli, L.; Possenti, A.; Psaltis, D.; Rambaud, D.; Reig, P.; Remillard, R.; Rodriguez, J.; Romano, P.; Romanova, M.; Schanz, T.; Schmid, C.; Segreto, A.; Shearer, A.; Smith, A.; Smith, P. J.; Soffitta, P.; Stergioulas, N.; Stolarski, M.; Stuchlik, Z.; Tiengo, A.; Torres, D. F.; Török, G.; Turolla, R.; Uttley, P.; Vaughan, S.; Vercellone, S.; Waters, R.; Watts, A.; Wawrzaszek, R.; Webb, N.; Wilms, J.; Zampieri, L.; Zezas, A.; Ziolkowski, J. The Large Observatory for X-ray Timing (LOFT). *Experimental Astronomy*. pp. 39 - +. 01/08/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 19** García-Berro, E.; Lorén-Aguilar, P.; Torres, S.; Althaus, L. G.; Isern, J. An upper limit to the secular variation of the gravitational constant from white dwarf stars. *Journal of Cosmology and Astroparticle Physics*. 5, pp. 21 - 0. 01/05/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 20** Althaus, L. G.; Córscico, A. H.; Torres, S.; Lorén-Aguilar, P.; Isern, J.; García-Berro, E. The evolution of white dwarfs with a varying gravitational constant. *Astronomy and Astrophysics*. 527, pp. A72 - 0. 01/03/2011.
Type of production: Article **Format:** Scientific and technical document or report
- 21** Isern, J.; Hernanz, M.; José, J. Binary Systems and Their Nuclear Explosions. *Astronomy with Radioactivities*. 812, pp. 233 - 305. Springer Verlag, 01/01/2011.
Type of production: Chapters of books **Format:** Book

- 22** Althaus, L. G.; Córscico, A. H.; Isern, J.; García-Berro, E. Evolutionary and pulsational properties of white dwarf stars. *Astronomy and Astrophysics Review*. 18, pp. 471 - 566. 01/10/2010.
Type of production: Article **Format:** Scientific and technical document or report
- 23** Isern, J.; Garcia-Berro, E.; Lorén-Aguilar, P. SNIa, white dwarfs and the variation of the gravitational constant. *Highlights of Astronomy*. 15, pp. 311 - 311. 01/10/2010.
Type of production: Article **Format:** Scientific and technical document or report
- 24** Althaus, L. G.; García-Berro, E.; Renedo, I.; Isern, J.; Córscico, A. H.; Rohrmann, R. D. Evolution of White Dwarf Stars with High-metallicity Progenitors: The Role of ^{22}Ne Diffusion. *Astrophysical Journal*. 719, pp. 612 - 621. 01/08/2010.
Type of production: Article **Format:** Scientific and technical document or report
- 25** Lorén-Aguilar, P.; Isern, J.; García-Berro, E. Smoothed particle hydrodynamics simulations of white dwarf collisions and close encounters. *Monthly Notices of the Royal Astronomical Society*. 406, pp. 2749 - 2763. 01/08/2010.
Type of production: Article **Format:** Scientific and technical document or report
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Work presented in conferences at the national or international level

- 1** **Title:** What are white dwarfs telling us about the evolution of the Galaxy
Name of the conference: Chemical evolution in the Universe: the next 30 years
Type of participation: Invited speaker
City: Castiglione della Pescaia (Italy),
Date: 15/09/2013
Isern, J.
- 2** **Title:** The double degenerate scenario for SNIa
Name of the conference: The Golden Age of Cataclysmic Variables and Related Objects - II
Type of participation: Invited speaker
City: Palermo, Sicilia, Italy
Date: 08/09/2013
Isern, J.



- 3 Title:** Gamma rays from Type Ia supernovae
Name of the conference: Scientific perspectives in the MeV domain
Type of participation: Invited speaker
City: Paris,
Date: 13/01/2013
Isern, J.
- 4 Title:** Observation of SN2011fe with INTEGRAL
Name of the conference: 9th INTEGRAL Workshop
Type of participation: Invited speaker
City: Paris, France
Date: 15/10/2012
Organising institution: European Space Astronomy Centre
Type of institution: State agency
City: Paris, France
Jordi Isern.
- 5 Title:** Producing Magnetic White Dwarf from Failed Type Ia Supernovae
Name of the conference: Supernovae Illuminating the Universe: from Individuals to Populations
Type of participation: Others
City: Garching,
Date: 10/09/2012
Kulebi, B.; Eksi, K. Y.; Lorén-Aguilar, P.; Isern, J.; García-Berro, E.
- 6 Title:** Evolution of debris disks around magnetic white dwarfs
Name of the conference: EUROWD 2012
Type of participation: Speaker
City: Krakow, Poland
Date: 13/08/2012
Publication in conference proceedings: Yes
Kulebi, B.; Eksi, K. Y.; Lorén-Aguilar, P.; García-Berro, E.; Isern, J.
- 7 Title:** The impact of mergers on the mass distribution of white dwarfs
Name of the conference: EUROWD12
Type of participation: Speaker
Date: 11/08/2012
Isern, J.
- 8 Title:** Axion cooling of white dwarfs
Name of the conference: 8th Patras Workshop on Axions, Wimps and Wisps
Type of participation: Invited speaker
Date: 17/07/2012
Isern, J.
- 9 Title:** A balloon borne Cadmium Telluride micro-Spectrometers Polarimeter for hard X ray astronomy
Name of the conference: 39th COPSPAR Scientific Assembly, 14-22 July, Mysore, India
Type of participation: Others
Date: 14/07/2012
Caroli, E.; Álvarez, J. M.; Áuricchio, N.; Budtz-Jorgensen, C.; Curado da Silva, R. M.; Del Sordo, S.; Ferrando, P.; Limousin, O.; Gálvez, J.; Laurent, P.; Hernanz, M.; Isern, J.; et. al.



- 10 Title:** White dwarf cooling sequences and cosmochronology
Name of the conference: 40th Liege Astrophysical International Colloquium
Type of participation: Invited speaker
City: Liege,
Date: 09/07/2012
Isern, J.
- 11 Title:** White dwarf as physical laboratories: the axion case
Name of the conference: 7th Patras Workshop on axions, wimps and WISPs
Type of participation: Speaker
City: Mykonos (Greece),
Date: 26/06/2011
Isern, J.
- 12 Title:** Type Ia supernovae and the DD scenario
Name of the conference: Advances in Computational Astrophysics, methods, tools and outcome
Type of participation: Invited speaker
Date: 14/06/2011
Isern, J.
- 13 Title:** Research and development of a gamma-ray imaging spectrometer in the MeV range in Barcelona
Name of the conference: Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series
Type of participation: Others
City: San Diego,
Date: 27/06/2010
Álvarez, J. M.; Gálvez, J.; Hernanz, M.; Isern, J.; Lozano, M.; Pellegrini, G.; Chmeissani, M.; Cabruja, E.; Ullán, M. "Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series (2010), vol. 7732, series. Presented at the Society of Photo-Optical Instrumentation Engineers (SPIE) Conference".
- 14 Title:** Imaging detector development for nuclear astrophysics using pixelated CdTe
Name of the conference: Technology and Instrumentation in Particle Physics (TIPP09)
Type of participation: Others
City: Tsukuba, Japan,
Date: 12/03/2009
Alvarez, J. M.; Gálvez, J.; Hernanz, M.; Isern, J.; Lozano, M.; Pellegrini, G.; Chmeissani, M. "vol. 623, num. 1, pages 434 - 436".
- 15 Title:** CdTe detector in Barcelona
Name of the conference: Joint Gamma-Ray Mission Meeting 2009
Type of participation: Speaker
City: ISAS/JAXA, Sagamihara Campus (Japan),
Date: 10/03/2009
Hernanz, M.; Alvarez, J. M.; Gálvez, J.; Isern, J.
- 16 Title:** Prospects for observing SNIa
Name of the conference: Joint Gamma-Ray Mission Meeting 2009
Type of participation: Speaker
City: ISAS/JAXA, Sagamihara Campus (Japan),
Date: 10/03/2009
Isern, J.; Hernanz, M.; Bravo, E.; Hirschmann, A. "viewgraphs on the web".



- 17 Title:** Stellar chronology with white dwarfs in wide binaries
Name of the conference: The Ages of Stars. IAU Symposium 258
Type of participation: Speaker
City: Baltimore,
Date: 13/10/2008
Catalán, S.; Garcés, A.; Ribas, I.; Isern, J.; García-Berro, E."Eds. E. E. Mamajek D. R. Soderblom, R. F. G. W. and., IAU Symposium (2009), vol. 258, series. IAU Symposium, pages 307-314".
- 18 Title:** OAdM observatory: towards fully unattended control
Name of the conference: Reunión Científica de la Sociedad Española de Astronomía
Type of participation: Others
City: Santander,
Date: 07/07/2008
Colomé, J.; Ribas, I.; Fernández, D.; Francisco, X.; Isern, J.; Palau, X.; Torra, J.
- 19 Title:** Testing the initial-final mass relationship of white dwarfs
Name of the conference: VIII Reunión Científica de la Sociedad Española de Astronomía
Type of participation: Speaker
City: Santander,
Date: 07/07/2008
Catalán, S.; Isern, J.; García-Berro, E.; Ribas, I."vol. 172, num. 1, pages 012007-+".
- 20 Title:** Axions and the white dwarf luminosity function
Name of the conference: 16th European White Dwarf Workshop
Type of participation: Speaker
City: Barcelona,
Date: 30/06/2008
Isern, J.; Catalán, S.; García-Berro, E.; Torres, S."Journal of Physics Conference Proceedings (JPCS)".
- 21 Title:** Testing the initial-final mass relationship of white dwarfs
Name of the conference: 16th European White Dwarf Workshop
Type of participation: Speaker
City: Barcelona,
Date: 30/06/2008
Catalán, S.; Isern, J.; García-Berro, E.; Ribas, I."vol. 172, num. 1, pages 012007-+".
- 22 Title:** OAdM robotic observatory: solutions for an unattended small-class observatory
Name of the conference: SPIE Astronomical Telescopes and Instrumentation 2008
Type of participation: Others
City: Marseille,
Date: 23/06/2008
Colomé, J.; Ribas, I.; Fernandez, D.; Francisco, X.; Isern, J.; Palau, X.; Torra, J."Eds. Bridger, A. and Radziwill, N. M., Proc. SPIE: Advanced Software and Control for Astronomy II (2008), vol. 7019, num. 1, pages 70192K".
- 23 Title:** Infrared Observations of Supernovae with IRAIT at Dome C
Name of the conference: 2nd ARENA Conference The Astrophysical Science Cases at Dome C
Type of participation: Others
City: Potsdam (Germany),
Date: 17/09/2007



Abia, C.; Dominguez, I.; Dolci, M.; Straniero, O.; Isern, J.; Colomé, J.; Busso, M.; Tosti, G."Eds. Zinnecker, H. and Epchtein, N. and Rauer, H., EAS Publications Series (2008), vol. 33, series. EAS Publications Series, pages 239-242".

24 Title: Moving Optical Systems of IRAIT: Design and Construction

Name of the conference: 1st ARENA Conference on "Large Astronomical Infrastructures at CONCORDIA, prospects and constraints for Antarctic Optical/IR Astronomy"

Type of participation: Others

City: Roscoff (France),

Date: 16/10/2006

Colomé, J.; Abia, C.; Domínguez, I.; Isern, J.; Tosti, G.; Busso, M.; Nucciarelli, G.; Roncella, F.; Straniero, O.; Dolci, M."EAS Publications Series (2007), vol. 25, series. EAS Publications Series, pages 221-224".

25 Title: Evolution of Stable and Unstable Galactic Disks

Name of the conference: VII Reunión Científica de la Sociedad Española de Astronomía

Type of participation: Others

City: Barcelona,

Date: 12/09/2006

Artigas, A.; Burkert, A.; Isern, J.; Bravo, E.

26 Title: The initial-final mass relationship of white dwarfs in common proper motion pairs

Name of the conference: VII Reunión Científica de la Sociedad Española de Astronomía

Type of participation: Speaker

City: Barcelona,

Date: 12/09/2006

Catalán, S.; Ribas, I.; Isern, J.; García-Berro, E.; Allende Prieto, C.

27 Title: The IFMR of white dwarfs in common proper motion pairs and open clusters.

Name of the conference: IAU General Assembly, Symposium 240: Binary Stars as Critical Tools and Tests in Contemporary Astrophysics

Type of participation: Speaker

City: Prague, Czech Republic,

Date: 22/08/2006

Catalán, S.; Ribas, I.; Isern, J.; García-Berro, E.; Allende Prieto, C.

28 Title: Design and construction of the moving optical systems of IRAIT

Name of the conference: International Astronomy Union XXVI General Assembly

Type of participation: Others

City: Prague,

Date: 14/08/2006

Colomé, J.; Abia, C.; Domínguez, I.; Isern, J.; Tosti, G.; Busso, M.; Nucciarelli, G.; Roncella, F.; Straniero, O.; Dolci, M."IAU Proceedings - Highlights of Astronomy (2007), vol. 14, pages 702-704".

29 Title: The initial-final mass relationship of white dwarfs in common proper motion pairs

Name of the conference: 15th European White Dwarf Workshop

Type of participation: Others

City: University of Leicester, Department of Physics and Astronomy,

Date: 07/08/2006

Catalán, S.; Ribas, I.; Isern, J.; García-Berro, E.; Allende Prieto, C.



- 30 Title:** The International Robotic Antarctic Infrared Telescope (IRAIT)
Name of the conference: SPIE, Ground-based and Airborne Telescopes
Type of participation: Speaker
City: Orlando,
Date: 23/05/2006
Tosti, G.; Straniero, O.; Abia, C.; Isern, J.; Colomé, J."Ground-based and Airborne Telescopes. Edited by Stepp, Larry M.. Proceedings of the SPIE, Volume 6267, pp. (2006). (2006)".
- 31 Title:** Models and observation of high energy emission from stellar explosions: novae and type Ia supernovae
Name of the conference: 39TH ESLAB Symposium on Trends in Space Science and Cosmic Vision 2020
Type of participation: Others
City: Noordwijk (Netherlands),
Date: 19/04/2005
Hernanz, M.; Isern, J.; Hirschmann, A.; Bravo, E.; José, J."Eds. Favata, F. and Sanz-Forcada, J. and Giménez, A. and Battrick, B., ESA SP-598: 39TH ESLAB Symposium on Trends in Space Science and Cosmic Vision 2020 (2005), pages 351-+".
- 32 Title:** White dwarfs in the Alhambra Survey
Name of the conference: 14th European White Dwarf Workshop
Type of participation: Others
City: Institute of Theoretical Physics and Astrophysics, University of Kiel, Germany,
Date: 19/07/2004
Catalán, S.; Isern, J.; García-Berro, E.; Torres, S.; The Alhambra Team.
- 33 Title:** IRAIT, Observatorio robótico en la Antártida
Name of the conference: I Reunión Nacional de Astrofísica Robótica
Type of participation: Speaker
City: Mazagón (Huelva),
Date: 24/05/2004
Colomé, J.; Ábia, C.; Domínguez, I.; Isern, J."Eds. Castro-Tirado, A.J. and de la Morena, B.A. and Torres, J., Astrofísica Robótica en España (2005), pages 213-227".
- 34 Title:** Future INTEGRAL Observations of Classical Novae
Name of the conference: Classical Nova Explosions
Type of participation: Others
City: Sitges (Barcelona), Spain,
Date: 20/05/2002
Hernanz, M.; Jean, P.; José, J.; Coc, A.; Starrfield, S.; Truran, J.; Isern, J.; Sala, G.; Giménez, A."Eds. Hernanz, M. and José, J., AIP Conf. Proc. 637: Classical Nova Explosions (2002), pages 435-439".
- 35 Title:** BATSE Observations of Classical Novae
Name of the conference: Fifth Compton Symposium
Type of participation: Others
City: Portsmouth, New Hampshire, USA,
Date: 15/09/1999
Hernanz, M.; Smith, D. M.; Fishman, J.; Harman, A.; Gomez-Gomar, J.; José, J.; Isern, J.; Jean, P."Eds. McConnell, M. L. and Ryan, J. M., American Institute of Physics Conference Series (2000), pages 82-+".



- 36** **Title:** New Theoretical Results Concerning Gamma-Ray Emission from Classical Novae
Name of the conference: Fifth Compton Symposium
Type of participation: Speaker
City: Williamsburg, Virginia, USA,
Date: 15/09/1999
Hernanz, M.; José, J.; Coc, A.; Gómez-Gomar, J.; Isern, J."Eds. McConnell, M. L. and Ryan, J. M., American Institute of Physics Conference Series (2000), pages 97-+".
- 37** **Title:** Predictions of Gamma-Ray Emission from Classical Novae and their Detectability by CGRO
Name of the conference: Fourth Compton Symposium
Type of participation: Others
City: Williamsburg, Virginia, USA,
Date: 27/04/1997
Hernanz, M.; Gomez-Gomar, J.; Jose, J.; Isern, J."Eds. Dermer, C. D. and Strickman, M. S. and Kurfess, J. D., AIP Conf. Proc. 410: Proceedings of the Fourth Compton Symposium (1997), pages 1125-+".
- 38** **Title:** Gamma-Ray Emission of Classical Novae
Name of the conference: The Transparent Universe (2nd INTEGRAL Workshop)
Type of participation: Speaker
City: St. Malo (France),
Date: 16/09/1996
Hernanz, M.; Gómez-Gomar, J.; José, J.; Isern, J."Eds. Winkler, C. and Courvoisier, T. J. -. and Durouchoux, P., ESA SP-382: The Transparent Universe (1997), pages 47-+".
- 39** **Title:** The double degenerate population
Name of the conference: 10th European Workshop on White Dwarfs
Type of participation: Speaker
City: Sites (Barcelona),
Date: 17/06/1996
Hernanz, M.; Isern, J.; Salaris, M."Eds. Isern, J. and Hernanz, M. and Garcia-Berro, E., ASSL Vol. 214: White dwarfs (1997), pages 307-+".
- 40** **Title:** Influence of crystallisation on the luminosity function of white dwarfs
Name of the conference: White Dwarfs: Advances in Observation and Theory
Type of event: Workshop
Type of participation: Speaker
City: Leicester, UK, United Kingdom
Date: 20/07/1992
Type: Chapters of books
Hernanz, M.; Isern, J.; García-Berro, E.; Mochkovitch, R.; Chabrier, G.; Ségreain, L."Eds. Barstow, M. A., NATO ASIC Proc. 403: White Dwarfs: Advances in Observation and Theory (1993), pages 31-+".



Experience in R&D&I management and participation in scientific committees

Scientific advisory committees, scientific societies

1 Committee title: Space Science Advisory Committee

Area of the activity: European Union

City: Paris, France

Institution which it depends on: European Space Agency (ESA) **Type of institution:** International Agency

City: Paris, France

Start-End date: 01/01/2014 - 31/12/2016

2 Committee title: Scientific Advisory Committee

Institution which it depends on: Observatorio Astronómico Hispano-Alemán de Calar Alto

Type of institution: 1

Start-End date: 10/06/2006 - 09/06/2010

3 Committee title: Affiliate Campus Association

Area of the activity: Non EU International

Institution which it depends on: International Space University

Type of institution: University

City: Strasbourg, Alsace, France

Start-End date: 01/01/1998 - 31/12/2000

R&D&I management experience

1 Title/name of the activity: Creation and direction of a research center

Type of management: Management of body

Responsibility held: Director

institution: Institut de Ciències de l'Espai (CSIC) **Type of institution:** Public Research Body

Start date: 30/12/1999

2 Title/name of the activity: Creation and management of a research center

Type of management: Management of body

Responsibility held: Director

institution: Institut d'Estudis Espacials de Catalunya **Type of institution:** R&D Centre

Start date: 06/02/1996