6. BACKGROUND OF THE APPLYING TEAM ON THE PROPOSED TOPIC (In case of a Coordinated Project, sections 6. and 6.1. will have to be filled out by each of the participant teams)
(two pages, maximum)

- **Indicate the previous activities and the goals reached by the team in the topic of the project.**

  If the project continues another one previously funded, the goals and results already obtained must be clearly indicated.

  If the project deals with new topic, the records and previous contributions of the team must be indicated, so as to with justifying its capability to carry out the new project.

The project ESTALLIDOS coordinates several groups of specialists in complementary aspects of the star formation in galaxies, with the final goal of providing a framework as complete and consistent as possible to improve our understanding of the phenomenon. The core of the research team has maintained a high degree of collaboration at different levels during the last years, as it can be seen in the publication list in the annex, and in the CVs. This core is formed by a small group of senior researchers whose works in the field of active star formation in galaxies have had international impact. New collaborators joined this initial group, which has also grown out of young researchers partly formed abroad during their PhD studies and/or as postdocs. A number of these young researchers have reentered our research system, at different groups and centers, with postdoctoral fellowships and contracts *Juan de la Cierva* (hereafter JdlC) or *Ramón y Cajal* (hereafter RyC). During the two previous editions of STARBURST, 4 RyCs and 3 JdlC have been incorporated (one in each node), 2 PhD theses have been presented, and another two are about to be finished. In addition seven Diplomas of Advanced Studies (DEAs) have been obtained. Our team cannot (and does not even try to) incorporate to all the scientists formed within the group. Rather, we are proud of contributing to the enrichment of this field of research with well-prepared investigators, which also have the enthusiasm and the capability to confront the challenges of the present Spanish Astrophysics. In this way, ESTALLIDOS has also contributed to shape new research projects, that have arisen from the specialization of some of the initial research lines, and took their own way. We understand that this merging and splitting represents the natural evolution of a coordinated project, and it has allowed to keep our project within reasonable bounds.

ESTALLIDOS forms a basic part of the Consolider-Ingenio-2010 project *First Science with GTC* recently granted by the MEC. Members of the project are actively implied in projects of excellence, and in European and national collaborations and networks (e.g. MAGPOP, OPTICON; ASTROCAM). The participation of the project in outreaching and popularizing activities has been considerable (e.g. in the last SEA meeting, eight talks plus two plenary talks were presented by team members). Outreaching activities are particularly important in this edition since they directly linked to one of the three main goals, in direct relation with our contribution to the Consolider project. Past popularizing activities include talks at universities, schools, Science museums. Various papers have appeared in the journal *Investigación y Ciencia*, the Spanish edition of *Scientific American*, as well as in other scientific magazines. Classes has been taught in the Popular Universities and the Courses for adults (ULL and UCM), and we have also participated in Science Weeks.

The key of our Science is the specialization by groups of experts, keeping the common objective mentioned above. This specialization is presented in six programs. The scientific record of the team has been summarized below following these programs, where we have emphasized some key contributions made in each one of the relevant areas. (A list with all the papers published during the period of

ESTALLIDOS 2 and ESTALLIDOS 3 is given in annex 3, and it will not repeated here.) The members of ESTALLIDOS published more than 70 papers in major (refereed) international journal from January 2005 to July 2006.

Program 1: Ionized regions: auto consistent models and chemical abundances.

This is one of the programs that remains from the creation of the research group in 1991. The members of the project have contributed significantly to the study of the star formation burst. Staring with the definition and nature of the star-forming region, we pin point the classic paper by G. Tenorio-Tagle about the *champagne* model for the HII regions "*The gas dynamics of H II regions: The champagne model* " (1979, Astron. Astrophys., 71, 59), with more than 260 cites in the ADS. We have also contributed to the development of evolutionary synthesis models of stellar populations, and to the determination of the structure, electron temperature, and chemical abundance of galactic and extragalactic HII regions. Some of the related papers have become reference works in the field, e.g.,

Evolutionary population synthesis in starburst regions
J.M. Mas-Hesse, D. Kunth 1991, Astron. Astrophys. Suppl. Ser., 88, 399
On the Ongoing Multiple Blowout in NGC 604
Tenorio-Tagle, Guillermo; Muñoz-Tuñón, Casiana; Pérez, Enrique; Maíz-Apellániz, Jesús; Medina-Tanco, Gustavo
The Astrophysical Journal, Volume 541, Issue 2, pp. 720. 2000
The chemical composition gradient across M 33
Vilchez, J. M.; Pagel, B. E. J.; Diaz, Angeles I.; Terlevich, Elena; Edmunds, M. G. MNRAS.235, 633. 1988. (≥180 citations)
On the determination of temperatures of ionizing stars in H II regions
Vilchez, J. M.; Pagel, B. E. J. MNRAS.231, 257. 1998. (≥140 citations)
Abundance analysis of giant H II regions in M51
Diaz, Angeles I.; Terlevich, Elena; Vilchez, Jose M.; Pagel, Bernard E. J.; Edmunds, Michael G. MNRAS.253, 245. 1991. (≥ 80 citations)
The chemical composition of HII regions in the outer Galaxy,
Vilchez, J. M.; Esteban, C.
MNRAS. 280, 720, 1996 (≥ 100 citations)
Bidimensional Spectroscopic Mapping and Chemical Abundances of the Star-forming Dwarf Galaxy I ZW 18
Vílchez, José M.; Iglesias-Páramo, Jorge 1998. ApJ 508, 248
Line temperatures and elemental abundances in H II galaxies,
Pérez-Montero, E. & Diaz, A.I. 2003. MNRAS, 346, 105
A comprehensive study of reported high-metallicity giant H II regions - I. Detailed abundance analysis
Castellanos, M., Díaz, A.I. & Terlevich, E. 2002. MNRAS, 329, 315
An empirical calibration of nebular abundances based on the sulphur emission lines
Díaz, A.I. & Pérez-Montero, E. 2000. MNRAS, 312, 130
Hubble Space Telescope Spectroscopy of Four Luminous Compact Blue Galaxies at Intermediate Redshift
Hoyos, C.; Guzmán, R.; Bershady, M. A.; Koo, D. C.; Díaz, A. I. 2004, AJ, 128, 1541

Program 2: Galaxies Chemical Evolution. Long-term evolutionary models.

It is an emerging programm, where models and data are combined together with chemical abundances and nucleosynthesis predictions.

The nitrogen-to-oxygen evolution in galaxies: the role of the star formation rate
Mollá, M.; Vílchez, J. M.; Gavilán, M.; Díaz, A. I., 2006. MNRAS 372, 1069
Oxygen and nitrogen abundances in nearby galaxies. Correlations between oxygen abundance and macroscopic properties.
Pilyugin, L. S.; Vílchez, J. M.; Contini, T. 2004. MNRAS 425, 849
Spectroscopy of Dwarf Galaxies in the Virgo Cluster. I. Data, Chemical Abundances, and Ionization Structure
Vílchez, José M.; Iglesias-Páramo, Jorge, 2003. ApJS 145, 225
Oxygen and nitrogen abundances in Virgo and field spirals
Pyliugin, L.S., Mollá, M., Ferrini, F. & Vílchez, J.M. 2002. A&A, 383, 14
On the effect of discrete numbers of stars in chemical evolution models
Cerviño, M. & Mollá, M. 2002, A&A, 394, 525
Galactic Bulges
Mollá, M., Ferrini, F. & Gozzi, G. 2000. MNRAS, 316, 345
Evolution of Spiral Galaxies. VII. Time Evolution of the Radial Distribution of Abundances
Mollá, M., Ferrini, F. & Díaz, A.I. 1997. ApJ, 475, 519
Damped Lya Systems as Spiral Galaxies, 1997.
Ferrini,F., Mollá, M. & Díaz, A.I. 1997. ApJ, 487, L29
Evolution of Spiral Galaxies. VI. Abundance Radial Distributions in External Galaxies
Mollá, M., Ferrini, F. & Diaz, A.I. 1996. ApJ, 466, 668
Evolution of Spiral Galaxies.V. The Galactic Bulge
Mollá & Ferrini, 1995. ApJ 454, 726
Evolution of Spiral Galaxies. III. Application of the Multiphase Model to the Galactic Disk
Ferrini, F. Mollá, M. Pardi, M.C. & Díaz, A.I. 1994. ApJ 427, 745

Program 3: Structural Parameters of Galaxies
(Modeling and structural parameter determination for star-forming galaxies)

Using observations in optical and infrared wavelengths, we have established the existence of host galaxies underlying BCDs, and we have advanced on their structural modeling.

Deep Near-Infrared Mapping of Young and Old Stars in Blue Compact Dwarf Galaxies
Cairós, Luz M., Caon, Nicola, Papaderos, Polychronis, Noeske, Kai, Vílchez, José M., Lorenzo, Begoña García, & Muñoz-Tuñón, Casiana
2003, Astrophysical Journal, vol 593, pg. 312-332
Spectrophotometric investigations of the blue compact dwarf galaxy Mrk 35
Cairós, L. M., García-Lorenzo, B., Caon, N., Vílchez, J. M., Papaderos, P., & Noeske, K.
2003, Astrophysics and Space Science, vol 284, pg. 611-614
New insights into the photometric structure of Blue Compact Dwarf Galaxies from a deep Near-Infrared study.
Noeske, K. G., Papaderos, P., Cairós, L. M., & Fricke, K. J.
2003, Astrophysics and Space Science, vol 284, pg. 615-618

Our long experience in studying the relationship between galactic structure and dynamics is summarized in the following papers, which include the development of specific methods of analysis and software:

Multiband analysis of the surface brightness distributions of SB and SC spirals from CCD images. II - Bulge-disk decomposition
Prieto, M.; Beckman, J. E.; Cepa, J.; Varela, A. M.
Astronomy and Astrophysics (ISSN 0004-6361), 1992, vol. 257, no. 1, p. 85.
Multiband analysis of the surface brightness distributions of SB and SC spirals CCD images. I - Observations Prieto, M.; Longley, D. P. T.; Perez, E.; Beckman, J. E.; Varela, A. M.; Cepa, J.. Astronomy and Astrophysics Supplement Series (ISSN 0365-0138), vol. 93, no. 3, p. 557, June 1992,
Environmental Effects in the Structural Parameters of Galaxies in the Coma Cluster
Aguerri, J. A. L., Iglesias-Paramo, J., Vilchez, J. M., & Muñoz-Tuñón, C.
2004, Astronomical Journal, vol 127, pg. 1344-1359

The two following papers contain the theoretical base and the algorithms for photometric inversion and recovering of the 3D structure of galaxies.

Triaxiality in the bulges of spirals galaxies
Varela, A.M.; Simonneau, E.; Muñoz-Tuñón, C.
Galactic Bulges, Ed. Dejonghe and Habing, 1993, p.435
Spectral Inversion of the Generalized Abel Integral Transform
Simonneau, E.; Varela, A.M.; Muñoz-Tuñón, C.
J.Quant.Spectrosc.Radiat.Transfer Vol. 49, N.2, 149, 1993

Studies on dynamics and properties of bars in spiral galaxies.

A strong correlation between bar strenght and global star formation activity in isolated barred galaxies,
J. A. L. Aguerri,1999, A&A, 351, 43
Characterizing bar structures: application to NGC 1300, NGC 7479 and NGC 7723
Aguerri, J. A. L.; Muñoz-Tuñón, C.; Varela, A. M.; Prieto, M. Astronomy and Astrophysics, 361, 841, 2000
Direct Confirmation of Two Pattern Speeds in the Double-barred Galaxy NGC 2950
Corsini, E. M., Debattista, Victor P., & Aguerri, JAL., 2003, Astrophysical Journal, vol 599, pg. L29-L32
Measurement of fast bars in a sample of early-type barred galaxies
Aguerri, J. A. L., Debattista, Victor P., & Corsini, Enrico Maria
2003, Monthly Notices of the Royal Astronomical Society, vol 338, pg. 465-480

Program 4: The feedback of massive star formation (triggering of super winds, star formation confinement, super star cluster effects).

We have key contributions to the hydro-dynamical modeling of massive star burst evolution in galaxic nuclei. We have also find out how to understand observations like the ones of M82, with its filaments and structures of several Kpc (SVG). We have studied the subject from an observational side using different techniques and tools (photometry, long-slit spectroscopy, FP spectroscopy, and multi-object spectroscopy). Most of works are not included here but listed in annex 3. Here we only indicate some representative references.

On the Hydrodynamics and associated effects of the massive star bursts evolution:

Tenorio-Tagle, G., Muñoz-Tuñón, C. *Nuclear starburst hydrodynamics*
Astrophysical Journal 478, 134 (1997)
Tenorio-Tagle G., Muñoz-Tuñón, C., Perez, E. & Melnick, J.
with giant extragalactic HII regions" ApJ L 490, L179 (1997)
Tenorio-Tagle G. & Muñoz-Tuñón, C.,
The biconical kpc-structure generated by nuclear starbursts
Monthly Notices of the Royal Astronomical Society, 293, 299 (1998).
Maiz-Apellaniz, J., Mas-Hesse, M., Muñoz-Tuñón, C., Vilchez, J., Castañeda, H.O.,
"Bidimensional spectroscopy of NGC 4214: Evolutionary state and interstellar extinction"
Astronomy & Astrophysics, 329, 409-430 (1998).
On the Ongoing Multiple Blowout in NGC 604
Tenorio-Tagle,G., Muñoz-Tuñón,C.,Pérez,E. Maíz-Apellániz,J.& Medina-Tanco,G., 2000, ApJ, 541, 720.

As a result of our work, we were invited twice to write for the scientific popularization journal "Investigación y Ciencia" (Spanish edition of Scientific American) :

Muñoz-Tuñón, C. & Tenorio-Tagle, G. *"Brotes de Formacion Estelar" ("Starforming bursts")*
Investigacion & Ciencia, 279, 1999.
Tenorio-Tagle, G, Muñoz-Tuñón, C., Melo, V. & Silich, S., *"Supervientos Galácticos" ("Galactic Superwinds")* Investigacion & Ciencia, 2005.

Theoretical contributions on the effects of the interaction with the interstellar medium and the intergalactic medium for the galaxies chemical enrichment:

On the dispersal and mixing of heavy elements
Tenorio-Tagle, Guillermo NewAR 44, 365. 2000
On the fate of processed matter in dwarf galaxies
Silich, Sergey A. & Tenorio-Tagle, G., MNRAS 299, 249. 1998.
On the Energy Required to Eject Processed Matter from Galaxies
Silich, Sergiy; Tenorio-Tagle, Guillermo, 2001, ApJ, 552, 91.

Program 5: Effects of the environment on the star formation activity in galaxies (Effects on clusters and groups of galaxies)

Members of our team have produce significant contributions to the field during the last 5 years. The key of the study is considering the evolution of starburst galaxies inside a medium that acts upon them in different ways. The problem is being pursued from both observations and theory. The following list includes some of the most relevant papers that we have produced on this subject, among which one can find several invited talks in international conferences and workshops:

Star forming objects in the tidal tails of groups of galaxies
Iglesias-Páramo, J.; Vílchez, J. M. , 2001. ApJ
On the Influence of the Environment on the Star Formation Rates of a Sample of Galaxies in Nearby Compact Groups
Iglesias-Páramo, J.; Vílchez, J. M. ApJ...518, 94. 1999.

The filament of ionized gas in the outskirt of M87
Gavazzi, G.; Boselli, A.; Vílchez, J. M.; Iglesias-Paramo, J.; Bonfanti, C A&A...361,1. 2000.
A Survey of the Interstellar Medium in Early-Type Galaxies. III. Stellar and Gas Kinematics
Caon, Nicola; Macchetto, Duccio; Pastoriza, Miriani ApJS..127, 39. 2000

In this invited review in the E.S.O.conference about the environment influence on galaxies with active star formation, the existent observational evidences to support this premise are presented and discussed:

Effects of the Environment on Star Formation and Abundances in Galaxies
Vílchez, José M. Review en Chemical Evolution from Zero to High Redshift, ESO Workshop. Edited by Jeremy R. Walsh, Michael R. Rosa. Berlin: Springer-Verlag, p. 175.1999
A survey of the ISM in early-type galaxies. I. The ionized gas.
Macchetto, F.; Pastoriza, M.; Caon, N.; Sparks, W. B.; Giavalisco, M.; Bender, R.; Capaccioli, M. A&AS.120. 463. 1996.
Atlas of H alpha Emission of a Sample of Nearby Hickson Compact Groups of Galaxies
Vilchez, J. M.; Iglesias-Paramo, J.
ApJS 117, 1. 1998
Recent Star Formation in Groups of Galaxies: HCG 31
Iglesias-Paramo, Jorge; Vilchez, Jose M.
Ap. J. 479, 190. 199
The Environment of Star-Forming Dwarf Galaxies
Vilchez, J. M.
R.Mex AC 6, 30. 1997

One of the first contributions to the observational study of the possible environmental effects on dwarf galaxies with active star formation in different environments:

On the Spectroscopic Properties of Star-Forming Dwarf Galaxies in Different Environments
Vilchez, J. M. Astron. J. 110, 1090. 1995

Program 6: Star Formation under extreme conditions (Star formation processes in the surroundings of active nuclei: active nuclei physics, nuclear starbursts)

The members of our team have a long experience in this program. One of us was the first researcher who pointed out the importance of the large scale star formation in active galaxies. The group has been very active in the use of the ground-base data (optical and IR), as well as satellite data, like ISO (in the infrared), HST (optical), IUE and HST (ultraviolet), XMM-Newton and Chandra (X-rays). We produced some fundamental results for understanding the infrared emission of Active Galaxies, and for the comprehension of the connection SB-AGN. The papers based on X-rays are cited in annex 3, publications in ESTALLIDOS 1 and ESTALLIDOS2. The following references are representative of the work carried out before 2002:

Star Formation in Seyfert Galaxies.
Rodriguez Espinosa, Rudy, Jones.ApJ312,55, 1987
Bimodal dust emission in three classical Seyfert galaxies:NGC3227, NGC4051 and NGC4151
Rodríguez Espinosa, Pérez García , Lemke , et al., A&A 315, L129, 1996

The nature of the far IR emission from Seyfert galaxies
.Rodríguez Espinosa J.M., Pérez García A.M. ApJ 487, L33, 1997
The mid and far Infrared Spectral Energy Distribution of Seyfert galaxies.
Pérez García A.M., Rodríguez Espinosa J.M., Santolaya Rey E.ApJ 500 685, 1998
Far IR ISO Maps of Active Galaxies
Pérez García A.M., Rodríguez Espinosa J.M., Fuensalida J.J. Ap J 529, 875, 2000
A Far IR Study of the CfA Seyfert Sample. I. The Data
Pérez García A.M., Rodríguez Espinosa J.M. Ap.J., 2001, 557, 39
Multiwavelength analysis of QSO, Seyfert galaxies and starbursts
J.M. Mas-Hesse, P. Rodríguez, L. Sanz, I.F. Mirabel "" 1994, ApJS., 92, 599
Multiwavelength analysis of active galaxies: implications on unified Seyfert models
J.M. Mas-Hesse, P.M. Rodríguez, L. Sanz, et al.,1995, A&A, 298, 22
Starburst activity in X-ray and FIR luminous galaxies: The case of NGC 4619 and IRAS 1556 +6359
J.M. Mas-Hesse, M. Cerviño, P.M. Rodríguez, Th. Boller. ":" 1996, A& A, 309, 431
Nuclear spiral and ring star-forming structures and the starburst-AGN connection in barred spirals; NGC 3351 and NGC 4303
L. Colina, M. García Vargas, J.M. Mas-Hesse, et al. , 1997, ApJ , 484, L41
On the origin of the UV continuum in Seyfert 2 galaxies
L. Colina, M.L. García-Vargas, R. González-Delgado, J.M. Mas-Hesse, E. Pérez, A. Alberdi, A. Krabbe " 1997, ApJ, 488, L71
Stellar populations in the nuclear regions of nearby radio galaxies,
Aretxaga, I., Terlevich, E., Terlevich, R., Cotter, G. & Díaz, A.I. 2001. MNRAS, 325, 636
Stellar indices and kinematics in Seyfert 1 nuclei
Jiménez-Benito, L., Díaz, A.I., Terlevich, R. & Terlevich, E. 2000. MNRAS, 317, 907
V, R, I and Halpha; photometry of circumnuclear star-forming regions in four galaxies with different levels of nuclear activity.
Díaz, A.I., Álvarez-Alvarez M., Terlevich, et al.2000 MNRAS, 311, 120

Books edited by members of the PROJECT

Star formation in stellar systems
Tenorio-Tagle, G.; Prieto, M.; Sanchez, F.
(Cambridge University Press) 1992

Infrared Astronomy
Mampaso, A.; Prieto, M.; Sánchez, F.
Cambridge: Cambridge University Press, 1993

Violent Star Formation, from 30 Doradus to QSOs",
G. Tenorio-Tagle 1994
(Cambridge University Press)

The Formation and Evolution of Galaxies
C. Muñoz-Tuñón & F. Sánchez
(Cambridge University Press)

Instrumentation for large Telescopes
J.M. Rodríguez Espinosa, A. Herrero, and F. Sánchez
(Cambridge University Press)

Structure and Dynamics of the Interstellar Medium
Editores Tenorio-Tagle, Guillermo; Moles, Mariano; Melnick, Jorge
IAU Colloquium No. 120 Guido's Jubilee. 1991.
Springer-Verlag Berlin Heidelberg New York

The Evolution of Galaxies.I. Observational Clues
Editores J.M. Vílchez, G. Stasinska, E. Perez
2001. Kluwer, Dordrecht

Organization of scientific events and other activities in support of Research.

Six conference and five winter schools have been organized by members of the project, in relation to the central subject of the star formation in Galaxies and related topics. Four *workshops* of STARBURST (ESTALLIDOS) have been organized by the project (electronic publication in CD-ROM, accessible at the web page http://www.iac.es/proyect/GEFE/estallidos)

In the framework of this project, we have carried out the implementation of the software code **Mocassin,** a 3-D MOnte CArlo SimulationS of Ionized Nebulae, in the UAM Calculus Centre. A complete set of chemical evolution have also been developed. These models will be available at the WWW soon.

6.1 PUBLIC AND PRIVATE FUNDING OF THE GROUP MEMBERS (I+D PROJECTS AND CONTRACTS)

IAC Group (Only those related to ESTALLIDOS**)**

Title of the project or contract	Relation-ship with the present project (1)	Principal Investigator	Funds obtained or requested EURO	Funding organization and reference of the project	Timespan of the project or date of the applica-tion (2)
El Ciclo de la Formación Estelar en Galaxias	1	C Muñoz Tuñón	4.600.000 Ptas	DGES	Oct 98-Sep 01
Estallidos de Formación Estelar en Galaxias. El poder de las Estrellas	0	IP y Coordinadora C Muñoz Tuñón	90.151,82 €	MCYT AYA2001-3939-C03-03	Dic 01-Dic 04
Impacto de las estrellas masivas en el medio interestelar	1	IP: Sergey Silich	35000 €	CONACYT	2002 - 2004
Estallidos de Formación Estelar en Galaxias.	0	IP y Coordinadora C Muñoz-Tuñon		MCyT: AYA-2004-08260-C03-01	C 12-2004-12-2007
Evolución de Galaxias en Cúmulos	1	J. Alfonso López Ague-rri	6000€	MCyT:Programa Ramón y Cajal.	Nov 3004-Nov 2005
Consolider-Ingenio2010 Primera Ciencia con GTC.	1	J.M. Rodríguez Espino-sa	5.500.000 €	MEC. Consolider Ingenio.	Octubre 2006-Octubre 2011.

IAA Group

Title of the project or contract	Relation-ship with the pre-sent pro-ject (1)	Principal Investigator	Funds obtained or requested EURO	Funding organization and reference of the project	Timespan of the pro-ject or date of the application (2)
Estallidos de Formación Estelar en Galaxias II	0	J.M. Vílchez	136.000	AYA2004-08260-C03-02	/12/04 /12/07
Efectos del entorno en la evolución de las galaxias	1	J.M. Vílchez	3.600	Acciones Integradas HF2001-0141	2002 - 03
Estallidos I	0	J.M. Vilchez	100.796	MCYT AYA2001-3939-C03-01	28/12/01 27/12/04
Estudio de la formación estelar de galaxias en cúmulos	1	J. Iglesias	6.000	MCYT Programa Ramón y Cajal	11/04-10/05
Galaxias y Cosmología	1	J. Masegosa	31.290	Junta Andalucía – TIC 114	2003-2005
La Evolución de las Galaxias	1	J.M. Vilchez	6000	MECD	2000
The Evolution of Galaxies I,II, III	1	G. Stasinska, J.M. Vilchez, G. Hensler	123.150	Unión Europea V FP HPCF-CNF-99-1	2000 -- 2002

Madrid group

Title of the project or contract	Relation-ship with the present project (1)	Principal Investigator	Funds obtained or requested EURO	Funding organization and reference of the project	Timespan of the project or date of the applica-tion (2)
From late type giant to dwarf galaxies	1	Federico Ferrini	11.800 US$	NATO	C. 2000-2001
Estudio de la formación y evolución de galaxias en dife-rentes épocas cosmológicas y de la estructura a gran escala del Universo.	1	Angeles I. Díaz Beltrán	15120000 ptas	MCYT AYA2000-0973	C. 2001-2003
Programa OMC-Integral	2	J. Miguel Mas Hesse	2.500000 Me	MCyT: ESP95-0389-C02-02 y Acciones Especiales anuales asociadas	C 1995-2000
INTEGRAL. Fase operacional de la cámara óptica (OMC)	2	J. Miguel Mas Hesse	180.904 Euros	MCyT: ESP2001-4540-PE	C 27-05-2002 1 año
INTEGRAL. Fase operacional de la cámara óptica (OMC)	2	:J. Miguel Mas Hesse	464.400 Euros	MCyT: ESP2002-04124-C03-01	C 26-09- 2002 26-09- 2005
Estudios de definición de la cámara óptica de Eddington: EddiCam	3	J. Miguel Mas Hesse	20.434 Euros	MCyT: ESP2001-4641-E	C 7-06-2002 1 año
Estallidos de Formación Estelar en Galaxias. El poder de las Estrellas	0	J. Miguel Mas Hesse	18030 Euros	MCyT: AYA2001-3939-C03-02	C 12-2001 12-2004
Participación en el proyecto AMS	3	Javier Berdugo		McyT:ESP-2003-01111	C 1-2004 12-2006

Estallidos de Formación Estelar en Galaxias.	0	Angeles I. Díaz		MCyT: AYA-2004-08260-C03-03	C 12-2004-12-2007
Dark Energy Survey	3	Eusebio Sánchez		MCyT: AYA-2006-13735-C02-02	C 1-2007 12-2009

(*) See section 5.5 of the call for proposals

(1) Write 0, 1, 2 or 3 according to the code:
0 = the same project
1 = closely related
2 = somehow related
3 = no relation

(2) Write C or S depending on whether it has been approved (C) or it is just and application (S).