

## Curriculum Vitae



### Personal information

First name(s) / Surname(s) **Linda DIMARE**  
Address(es) 63, via Mario Giuntini, 56023, Cascina, Pisa, Italy  
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E-mail dimare@spacedys.com  
Nationality ITALIAN  
Date of birth 06.05.1981  
Gender Female

### Desired employment / Occupational field

#### **Solution Development & Manager**

#### **Work experience**

Dates May 2011 onwards  
Occupation or position held Associate and member of the board of directors of the SpaceDyS company  
Main activities and responsibilities

- Administration
- Software development for the radio-science experiment of the NASA JUNO mission to Jupiter

Name and address of employer SpaceDyS s.r.l., Polo Tecnologico - Incubatore d'impresa, 63, via Mario Giuntini, 56023, Cascina, Pisa, Italy  
Type of business or sector Research, software development, education and consultancy in the fields of astronomy, mathematics and physics.

Dates May 2010 onwards  
Occupation or position held Post-Doc Researcher at the University of Pisa: member of the Celestial Mechanics Group at the Department of Mathematics  
Main activities and responsibilities Orbit determination of Space Debris:

- development of innovative orbit determination algorithms;
- implementation of the new algorithms in Fortran code;
- large scale simulations.

Name and address of employer Department of Mathematics, University of Pisa, 5, largo Bruno Pontecorvo, 56127, Pisa, Italy

Type of business or sector | Education and Research

## Education and training

Dates | From November 2005 to January 2010

Title of qualification awarded | Ph.D. in Mathematics

Principal subjects/occupational skills covered | Celestial Mechanics:  
– the problem of orbit determination for Asteroids and Space Debris;  
– the non-integrability of the N-center problem, hyperbolic dynamics and chaos.

Name and type of organisation providing education and training | Department of Mathematics, University of Rome “Sapienza”, Italy

Dates | From October 2000 to March 2005

Title of qualification awarded | Master's degree (Italian four year Laurea) in Mathematics with 110/110 cum Laude

Principal subjects/occupational skills covered | Algebra and Geometry. Graduation thesis in the field of Algebraic Geometry entitled “Superfici algebriche rigate con il massimo numero di nodi (Ruled algebraic surfaces with maximum number of nodes)”.

Name and type of organisation providing education and training | Department of Mathematics, University of Pisa, Italy.  
Fellowship paid by INDAM (National Institute of High Mathematics Francesco Severi).

## Personal skills and competences

Mother tongue(s) | **Italian**

Other language(s)

Self-assessment  
European level (\*)

**English**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences

- team spirit, developed by studying and doing research with other people;
- ability to stay in a multicultural environment, gained through the participation to international conferences;

Organisational skills and competences

- sense of organisation acquired through self organization of my studies and research;
- ability to find solutions to problems, acquired through my scientific education;

Computer skills and competences

- good knowledge of OrbFit tool for orbit determination
- good knowledge of Fortran scientific programming language
- basic command of MATLAB, GNU Octave and Maple tools
- basic knowledge of Bash shell
- good knowledge of LaTeX language and document preparation system
- good command of Microsoft Office and Open Office tools

**Additional information****Publications on international refereed journals**

1. L. Dimare, "Chaotic quasi-collision trajectories in the 3-centre problem", *Celest. Mech. Dyn. Astr.* vol. 107/4, pp. 427-449 (2010).
2. G.F. Gronchi, L. Dimare, A. Milani, "Orbit determination with the two- body integrals", *Celest. Mech. Dyn. Astr.* vol.107/3, pp. 299-318 (2010).
3. G.F. Gronchi, D. Farnocchia, and L. Dimare, "Orbit determination with the two-body integrals II," *Celest. Mech. Dyn. Astr.* vol. 110/3, pp. 257-270 (2011).
4. A. Milani, D. Farnocchia, L. Dimare, A. Rossi, F. Bernardi, "Innovative observing strategy and orbit determination for Low Earth Orbit Space Debris," submitted.

**Publications on Proceedings**

5. A. Milani, G.F. Gronchi, D. Farnocchia, G. Tommei, L. Dimare, "Optimization of space surveillance resources by innovative preliminary orbit methods", *Proceedings of the fifth European Conference on Space Debris, 30 Marzo - 2 Aprile 2009, Darmstadt, Germania, SP-672 on CD-ROM.*
6. L. Dimare, A. Milani, D. Farnocchia, A. Rossi, and F. Bernardi, "Innovative orbit determination algorithms for a complete Debris catalog in the upper LEO region", *Proceedings of the European Space Surveillance Conference WPP-321, 7-9 June 2011, Madrid, Spain.*
7. L. Cibirin, M. Chiarini, A. Bertoli, F. Villa, L. Dimare, D. Farnocchia, F. Bernardi, A. Milani, G.M. Pinna, I. Zayer, P.M. Besso, R. Ragazzoni, and A. Rossi "A dynamic observation concept as a key point for an enhanced SSA optical network", *Proceedings of the European Space Surveillance Conference WPP-321, 7-9 June 2011, Madrid, Spain.*
8. L. Dimare, D. Farnocchia, G.F. Gronchi, A. Milani, F. Bernardi, and A. Rossi "Innovative system of very wide field optical sensors for space surveillance in the LEO region", *Proceedings of the Advanced Maui Optical and Space Surveillance Technologies Conference (AMOS), 13-16 September 2011, Maui, Hawaii.*

**Collaboration to research projects**

I collaborated to the ESA project "Space Situational Awareness" (SSA), by working for the ESA/ESOC contract "System Support for SSA Requirements Analysis - Part I: Feasibility study of an innovative system for debris surveillance in LEO regime".

**Memberships**

1. Italian Society for Chaos and Complexity (SICC), from 2010.
2. National Group of Mathematical Physics (GNFM), from 2010.
3. Italian Society of Celestial Mechanics and Astrodynamics (SIMCA), ordinary member from 16<sup>th</sup> March 2009.
4. Association of Italian Ph. D. Students and Ph. D.s (ADI), from 24<sup>th</sup> September 2008.

**Teaching activity**

A.Y. 2007/2008 and 2008/2009:

1. Support teaching for the course "Rational Mechanics", degree course in Mathematics, Faculty of Science, University of Rome "Sapienza".
2. Support teaching for the course "Mathematics and computer science methods in Biology", degree course in Biology, Faculty of Science, University of Rome "Sapienza".

