



## Simone D'Amico

Assistant Professor of Aeronautics and Astronautics

### CONTACT INFORMATION

- **Administrator**

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### Bio

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#### BIO

Simone D'Amico is an Assistant Professor of Aeronautics and Astronautics at Stanford University, California, USA. He is founder and director of the Stanford's Space Rendezvous Lab (SLAB). He is a Terman Faculty Fellow of the School of Engineering. He holds a Ph.D. in aerospace engineering from the Technical University of Delft (The Netherlands) and received his B.S. and M.S. degrees from Politecnico di Milano (Italy). He has been working as researcher at the German Aerospace Center (DLR) from 2003 to 2013 in the fields of space flight dynamics, autonomous satellite navigation and control, spacecraft formation-flying, and on-orbit servicing.

Dr. D'Amico gave key contributions to the design, development, and operations of spacecraft formation-flying and rendezvous missions such as GRACE, TanDEM-X, and PRISMA for which he received several awards. He developed the Spaceborne Autonomous Formation Flying Experiment (SAFE), the Advanced Rendezvous demonstration using GPS and Optical Navigation (ARGON) on PRISMA and the TanDEM-X Autonomous Formation Flying (TAFF) system. More recently he has been working on the design of the GPS-based navigation system for the DEOS and PROBA-3 formation-flying missions. He acted as PI of the Autonomous Vision Approach-Navigation and Target Identification (AVANTI) experiment on-board the FireBIRD mission.

Dr. D'Amico's current research aims at enabling future distributed space systems for unprecedented science and exploration. These include spacecraft formation-flying, rendezvous and docking, swarms and fractionated spacecraft. His efforts lie at the intersection of advanced astrodynamics, GN&C, and space system engineering to fulfill the tight requirements posed by these novel space architectures. The most recent mission concept developed by Dr. D'Amico is a miniaturized distributed occulter/telescope (mDOT) system for direct imaging of exozodiacal dust and exoplanets. Dr. D'Amico is spearheading a gravitational space science and exploration program at Stanford based on multiple drag-free micro-satellites.

He has over 100 scientific publications including conference proceedings, peer-reviewed journal articles, and book chapters. He is peer reviewer for various AIAA and IEEE journals. He has been nominated in 2008, 2011, 2012, and 2013 as Excellent Reviewer for the AIAA Journal of Guidance, Control, and Dynamics. He has been Programme Committee Member (2008), Co-Chair (2011), and Chair (2013) of the International Symposium on Spacecraft Formation Flying Missions and Technologies. He is Programme Committee Member of the International Workshop on Satellite Constellations and Formation Flying since 2013. He is Associate Editor

of the AIAA Journal of Guidance, Control, and Dynamics and the Journal of Space Science and Engineering. He is Associate Member of the Omega Alpha Association for Systems Engineering.

## ACADEMIC APPOINTMENTS

- Assistant Professor, Aeronautics and Astronautics

## HONORS AND AWARDS

- NASA Group Achievement Award for the Gravity Recovery and Climate Experiment (GRACE), National Aeronautics and Space Administration (04/01/2004)
- DLR's Wissenschaft Preis 2006 (Science Award), German Aerospace Center (11/01/2006)
- Excellent Reviewer for the AIAA Journal of Guidance, Control, and Dynamics, American Institute of Aeronautics and Astronautics (10/01/2007 - 09/01/2008)
- First Class Award of the IAF 5th International Workshop on Constellations and Formation Flying, International Astronautical Federation (07/01/2008)
- Associate Member of the System Engineering Honor Society, Omega Alpha Association (12/01/2010)
- DLR's Besondere Auszeichnung 2010 for the TanDEM-X Project Team, German Aerospace Center (03/01/2011)
- Excellent Reviewer for the AIAA Journal of Guidance, Control, and Dynamics, American Institute of Aeronautics and Astronautics (10/01/2011 - 09/01/2012)
- DLR's Award for PRISMA Science Team, German Aerospace Center (12/01/2011)
- DLR's Forschungssemester (Sabbatical), German Aerospace Center (09/01/2012 - 12/01/2012)
- Excellent Reviewer for the AIAA Journal of Guidance, Control, and Dynamics, American Institute of Aeronautics and Astronautics (10/01/2012 - 09/01/2013)
- Terman Faculty Fellowship, Stanford School of Engineering (12/01/2013 - 11/30/2016)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- International Program Committee Member, International Workshop on Satellite Constellations and Formation Flying (IWSCFF) (2013 - present)
- Chairman and Organizer, 5th International Conference on Spacecraft Formation Flying Missions and Technologies (SFFMT) (2011 - 2013)
- Program Committee Member, International Conference on Spacecraft Formation Flying Missions and Technologies (SFFMT) (2008 - present)
- Co-Chair, International Conference on Spacecraft Formation Flying Missions and Technologies (SFFMT) (2008 - present)

## PROFESSIONAL EDUCATION

- PhD, Technical University of Delft (The Netherlands) , Aerospace Engineering (2010)
- BS and MS, Politecnico di Milano (Italy) , Aerospace Engineering (2003)

## LINKS

- Stanford's Space Rendezvous Laboratory: <https://people.stanford.edu/damicos/>
- Stanford's Aero/Astro Department: <http://aa.stanford.edu/>
- 5th SFFMT Conference: <http://www.sffmt2013.org/>

## Teaching

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### COURSES

#### 2018-19

- How to Design a Space Mission: from Concept to Execution: AA 118N (Aut)
- Space Mechanics: AA 279A (Win)
- Spacecraft Attitude Determination and Control: AA 279C (Spr)

#### 2017-18

- How to Design a Space Mission: from Concept to Execution: AA 118N (Aut)

- Space Mechanics: AA 279A (Win)
- Spacecraft Formation-Flying and Rendezvous: AA 279D (Spr)

#### 2016-17

- How to Design a Space Mission: from Concept to Execution: AA 118N (Aut)
- Space Mechanics: AA 279A (Win)
- Spacecraft Attitude Determination and Control: AA 279C (Spr)

#### 2015-16

- Advanced Dynamics and Control of Spacecraft: AA 271B (Spr)
- Distributed Space Systems: AA 270 (Aut)
- Space Mechanics: AA 279A (Win)

## STANFORD ADVISEES

### Doctoral Dissertation Reader (AC)

Kazuma Gunning, Andrew Neish, Shiwen Zhang

### Orals Evaluator

Shankararaman Ramakrishnan

### Master's Program Advisor

Jesse Diamond

### Doctoral Dissertation Co-Advisor (AC)

Shankararaman Ramakrishnan

## Publications

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### PUBLICATIONS

- **Comparative assessment of techniques for initial pose estimation using monocular vision** *ACTA ASTRONAUTICA*  
Sharma, S., D'Amico, S.  
2016; 123: 435-445
- **Safe Picosatellite Release from a Small Satellite Carrier** *JOURNAL OF SPACECRAFT AND ROCKETS*  
Wermuth, M., Gaias, G., D'Amico, S.  
2015; 52 (5): 1338-1347
- **Impulsive Maneuvers for Formation Reconfiguration Using Relative Orbital Elements** *JOURNAL OF GUIDANCE CONTROL AND DYNAMICS*  
Gaias, G., D'Amico, S.  
2015; 38 (6): 1036-1049
- **Angles-Only Navigation to a Noncooperative Satellite Using Relative Orbital Elements** *AIAA/AAS Astrodynamics Specialist Conference*  
Gaias, G., D'Amico, S., Ardaens, J.  
AMER INST AERONAUTICS ASTRONAUTICS.2014: 439-51
- **Noncooperative Rendezvous Using Angles-Only Optical Navigation: System Design and Flight Results** *JOURNAL OF GUIDANCE CONTROL AND DYNAMICS*  
D'Amico, S., Ardaens, J., Gaias, G., BENNINGHOFF, H., Schleppe, B., JORGENSEN, J. L.  
2013; 36 (6): 1576-1595
- **GPS-based relative navigation for the Proba-3 formation flying mission** *ACTA ASTRONAUTICA*  
Ardaens, J., D'Amico, S., Cropp, A.  
2013; 91: 341-355

- **Flight Results of Precise Autonomous Orbit Keeping Experiment on PRISMA Mission** *22nd AAS/AIAA Space Flight Mechanics Meeting*  
De Florio, S., D'Amico, S., Radice, G.  
AMER INST AERONAUTICS ASTRONAUTICS.2013: 662–74
- **Autonomous formation flying based on GPS - PRISMA flight results** *6th International Workshop on Satellite Constellation and Formation Flying (IWSCFF)*  
D'Amico, S., Ardaens, J., De Florio, S.  
PERGAMON-ELSEVIER SCIENCE LTD.2013: 69–79
- **Noncooperative Rendezvous using Angles-only Optical Navigation: System Design and Flight Results** *Journal of Guidance, Control, and Dynamics*  
D'Amico, S., Ardaens, J., Gaias, G., Benninghoff, H., Schlepp, B., Joergensen, J. L.  
2013; 36 (6): 1576-1595
- **FFRF and GPS sensor fusion for relative navigation of formation flying satellites** *5th International Conference on Spacecraft Formation Flying Missions and Technologies*  
Allende, G., D'Amico, S., Montenbruck, O., Hugentobler, U., Delpech, M.  
2013
- **Generalized Multi-Impulsive Maneuvers for Optimum Spacecraft Rendezvous** *5th International Conference on Spacecraft Formation Flying Missions and Technologies*  
Gaias, G., D'Amico, S., Ardaens, J.  
2013
- **Pose Estimation of an Uncooperative Spacecraft from Actual Space Imagery** *5th International Conference on Spacecraft Formation Flying Missions and Technologies*  
D'Amico, S., Benn, M., Joergensen, J. L.  
2013
- **Combined Autonomous Absolute and Relative Orbit Control in Low Earth Orbit** *5th International Conference on Spacecraft Formation Flying Missions and Technologies*  
De Florio, S., D'Amico, S., Radice, G.  
2013
- **PRISMA** *Distributed Space Missions for Earth System Monitoring*  
D'Amico, S., Bodin, P., Delpech, M., Noteborn, R.  
Springer Space Technology Library.2013: 599–637
- **GPS Based Relative Navigation** *Distributed Space Missions for Earth System Monitoring*  
Montenbruck, O., D'Amico, S.  
Springer Space Technology Library.2013: 185–223
- **Spaceborne Autonomous Formation-Flying Experiment on the PRISMA Mission** *AIAA Guidance, Navigation, and Control Conference*  
D'Amico, S., Ardaens, J., Larsson, R.  
AMER INST AERONAUTICS ASTRONAUTICS.2012: 834–50
- **Navigation and Control of the PRISMA Formation: In-Orbit Experience** *Journal of Mechanics Engineering and Automation*  
D'Amico, S., Larsson, R.  
2012; 2 (5): 312-320
- **GPS-Based Relative Navigation for the PROBA-3 Formation Flying Mission** *63rd International Astronautical Congress*  
Ardaens, J., D'Amico, S., Cropp, A.  
2012
- **FLIGHT RESULTS OF THE PRECISE AUTONOMOUS ORBIT KEEPING EXPERIMENT ON THE PRISMA MISSION** *22nd AAS/AIAA Space Flight Mechanics Meeting*  
De Florio, S., D'Amico, S., Radice, G.  
UNIVELT INC.2012: 1103–1122
- **Precise Autonomous Orbit Control in Low Earth Orbit** *AIAA/AAS Astrodynamics Specialist Conference*  
De Florio, S., D'Amico, S., Radice, G.  
2012

- 
- **THE PRISMA FORMATION FLYING DEMONSTRATOR: OVERVIEW AND CONCLUSIONS FROM THE NOMINAL MISSION** *35th Annual AAS Rocky Mountain Section Guidance and Control Conference*  
Bodin, P., Noteborn, R., Larsson, R., Karlsson, T., D'Amico, S., Ardaens, J. S., Delpech, M., Berges, J.  
UNIVELT INC.2012: 441–460
  - **Angles-only Navigation to a Non-Cooperative Satellite using Relative Orbital Elements** *AIAA/AAS Astrodynamics Specialist Conference*  
Gaias, G., D'Amico, S., Ardaens, J.  
2012
  - **Final Commissioning of the PRISMA GPS Navigation System** *Journal of Aerospace Engineering, Sciences and Applications*  
Ardaens, J., D'Amico, S., Montenbruck, O.  
2012; 4 (3): 104-118
  - **Flight Demonstration of Non-Cooperative Rendezvous using Optical Navigation** *23rd International Symposium on Space Flight Dynamics*  
D'Amico, S., Ardaens, J., Gaias, G., Schlepp, B., Benninghoff, H., Tzschichholz, T., Karlsson, T., Joergensen, J. L.  
2012
  - **Final Commissioning of the PRISMA GPS Navigation System** *22nd International Symposium on Spaceflight Dynamics*  
Ardaens, J., D'Amico, S., Montenbruck, O.  
2011
  - **GPS Navigation Based Proximity Operations by the PRISMA Satellites - Flight Results** *4th International Conference on Spacecraft Formation Flying Missions and Technologies*  
Larsson, R., D'Amico, S., Noteborn, R., Bodin, P.  
2011
  - **Proximity Operations of On-Orbit Servicing Spacecraft using an Eccentricity/Inclination Vector Separation** *22nd International Symposium on Spaceflight Dynamics*  
Spurmann, J., D'Amico, S.  
2011
  - **Navigation and Control of the PRISMA Formation: In-Orbit Experience** *18th IFAC World Congress*  
D'Amico, S., Larsson, R.  
2011
  - **Formation Flying Testbed at DLR's German Space Operations Center** *8th International ESA Conference on Guidance, Navigation & Control Systems*  
Gaias, G., Ardaens, J., D'Amico, S.  
2011
  - **In-Flight Demonstration of Formation Control based on Relative Orbital Elements** *4th International Conference on Spacecraft Formation Flying Missions and Technologies*  
D'Amico, S., Ardaens, J., Larsson, R.  
2011
  - **Operation Concept of the Precise Autonomous Orbit Keeping Experiment on the PRISMA Mission** *8th IAA Symposium on Small Satellites for Earth Observation*  
De Florio, S., D'Amico, S., Radice, G.  
2011
  - **Spaceborne Autonomous Formation Flying Experiment on the PRISMA Mission** *AIAA Guidance, Navigation & Control Conference*  
D'Amico, S., Ardaens, J., Larsson, R.  
2011
  - **Autonomous Formation Flying in LEO - Seven months of routine formation flying with frequent reconfigurations** *4th International Conference on Spacecraft Formation Flying Missions and Technologies*  
Larsson, R., Noteborn, R., Bodin, P., D'Amico, S., Karlsson, T., Carlsson, A.  
2011
  - **Early Flight Results from the TanDEM-X Autonomous Formation Flying System** *4th International Conference on Spacecraft Formation Flying Missions and Technologies*  
Ardaens, J., D'Amico, S., Fischer, D.

2011

- **Relative Control of a Virtual Telescope Using Global Positioning System and Optical Metrology** *JOURNAL OF GUIDANCE CONTROL AND DYNAMICS*  
Perea, L., Ardaens, J., D'Amico, S., Elosegui, P.  
2010; 33 (4): 1281-1287
- **PRISMA - Formation Flying Project Close to Launch** *Small Satellites Systems and Services - The 4S Symposium*  
Persson, S., Harr, J., D'Amico, S., Joergensen, J. L.  
2010
- **Flight Results from the PRISMA GPS-Based Navigation** *5th ESA Workshop on Satellite Navigation Technologies, NAVITEC'2010*  
Ardaens, J., D'Amico, S., Montenbruck, O.  
2010
- **Autonomous Navigation and Control of Formation Flying Spacecraft on the PRISMA Mission** *61st International Astronautical Congress*  
De Florio, S., D'Amico, S., Ardaens, J.  
2010
- **Hardware-in-the-loop Multi-satellite Simulator for Proximity Operations** *11th Int. WS on Simulation & EGSE facilities for Space Programmes; SESP 2010*  
Gaias, G., D'Amico, S., Boge, T.  
2010
- **Flight Results from PRISMA Formation Flying and Rendezvous Demonstration Mission** *61st International Astronautical Congress*  
Persson, S., D'Amico, S., Harr, J.  
2010
- **Autonomous Formation Flying Based on GPS - PRISMA Flight Results** *6th International Workshop on Satellite Constellation and Formation Flying*  
D'Amico, S., Ardaens, J., De Florio, S.  
2010
- **GPS-Based Spaceborne Autonomous Formation Flying Experiment (SAFE) on PRISMA: Initial Commissioning** *AIAA/AAS Astrodynamics Specialist Conference*  
D'Amico, S., Ardaens, J., De Florio, S., Montenbruck, O., Persson, S., Noteborn, R.  
2010
- **Functional and Performance Validation of the PRISMA Precise Orbit Determination Facility** *2010 International Technical Meeting of the Institute-of-Navigation*  
Ardaens, J., Montenbruck, O., D'Amico, S.  
INST NAVIGATION.2010: 490-500
- **Differential GPS: An Enabling Technology for Formation Flying Satellites** *7th IAA International Symposium on Small Satellites for Earth Observation*  
D'Amico, S., Montenbruck, O.  
SPRINGER-VERLAG BERLIN.2010: 457-465
- **Spaceborne Autonomous Relative Control System for Dual Satellite Formations** *JOURNAL OF GUIDANCE CONTROL AND DYNAMICS*  
Ardaens, J., D'Amico, S.  
2009; 32 (6): 1859-1870
- **Relative Orbit Control of a Virtual Telescope in an Eccentric Orbit** *21st International Symposium on Space Flight Dynamics*  
Perea, L., D'Amico, S., Elosegui, P.  
2009
- **Differential GPS: An Enabling Technology for Formation Flying Satellites** *7th IAA Symposium on Small Satellite for Earth Observation*  
D'Amico, S., Montenbruck, O.  
2009
- **PRISMA Relative Orbit Determination using GPS Measurements** *21st International Symposium on Space Flight Dynamics*  
Delong, N., Laurichesse, D., Harr, J., D'Amico, S.  
2009
- **OPTIMAL AUTONOMOUS ORBIT CONTROL OF REMOTE SENSING SPACECRAFT** *AAS/AIAA 19th Space Flight Mechanics Meeting*

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De Florio, S., D'Amico, S.  
UNIVELT INC.2009: 949–967

- **Autonomous Formation Keeping and Reconfiguration for Remote Sensing Spacecraft** *21st International Symposium on Space Flight Dynamics*  
D'Amico, S., De Florio, S., Larsson, R., Nylund, M.  
2009
- **Navigation of Formation Flying Spacecraft using GPS: the PRISMA Technology Demonstration** *22nd International Technical Meeting of the Satellite Division of the Institute-of-Navigation (ION GNSS-09)*  
D'Amico, S., Ardaens, J., Montenbruck, O.  
INST NAVIGATION.2009: 1427–1441
- **The Precise Autonomous Orbit Keeping Experiment on the PRISMA Mission** *JOURNAL OF THE ASTRONAUTICAL SCIENCES*  
De Florio, S., D'Amico, S.  
2008; 56 (4): 477-494
- **Navigation and Control of the TanDEM-X Formation** *Symposium Honoring Byron Tapley's 50 Years of Contributions*  
Montenbruck, O., Kahle, R., D'Amico, S., Ardaens, J.  
AMER ASTRONAUTICAL SOC.2008: 341–57
- **Hardware-in-the-loop Demonstration of GPS-Based Autonomous Formation Flying** *4th ESA Workshop on Satellite Navigation User Equipment Technology, NAVITEC'2008*  
Yamamoto, T., D'Amico, S.  
2008
- **GPS-Based Relative Navigation during the Separation Sequence of the PRISMA Mission** *AIAA Guidance, Navigation and Control Conference*  
D'Amico, S., Montenbruck, O., Larsson, R., Chasset, C.  
2008
- **Autonomous Formation Flying - TanDEM-X, PRISMA and Beyond** *5th International Workshop on Satellite Constellations and Formation Flying*  
D'Amico, S., Ardaens, J., De Florio, S., Montenbruck, O.  
2008
- **Offline and Hardware-in-the-loop Validation of the GPS-based Real-Time Navigation System for the PRISMA Formation Flying Mission** *3rd International Symposium on Formation Flying, Missions and Technology*  
D'Amico, S., De Florio, S., Ardaens, J., Yamamoto, T.  
2008
- **TanDEM-X Autonomous Formation Flying System** *3rd International Symposium on Formation Flying, Missions and Technology*  
Ardaens, J., D'Amico, S., Ulrich, D., Fischer, D.  
2008
- **The precise autonomous orbit keeping experiment on the prisma formation flying mission** *AAS/AIAA 18th Space Flight Mechanics Meeting*  
De Florio, S., D'Amico, S., Fernandez, M. G.  
UNIVELT INC.2008: 1679–1694
- **Cross-Validation of GPS and FFRF-Based Relative Navigation for the PRISMA Mission** *4th ESA Workshop on Satellite Navigation User Equipment Technology, NAVITEC'2008*  
Montenbruck, O., Delpach, M., Ardaens, J., Delong, N., D'Amico, S., Harr, J.  
2008
- **Autonomous formation flying for the PRISMA mission** *AAS/AIAA 16th Space Flight Mechanics Meeting*  
Gill, E., D'Amico, S., Montenbruck, O.  
AMER INST AERONAUT ASTRONAUT.2007: 671–81
- **First In-orbit Experience of TerraSAR-X Flight Dynamics Operations** *20th International Symposium on Space Flight Dynamics*  
Kahle, R., Kazeminejad, B., Kirschner, M., Yoon, Y., Kiehling, R., D'Amico, S.  
2007
- **Spaceborne Autonomous and Ground Based Relative Orbit Control for the TerraSAR-X/TanDEM-X Formation** *20th International Symposium on Space Flight Dynamics*

- Ardaens, J., D'Amico, S., Kazeminejad, B., Montenbruck, O., Gill, E.  
2007
- **Autonomous Formation Flying at DLR's German Space Operations Center (GSOC)** *58th International Astronautical Congress*  
Rupp, T., D'Amico, S., Montenbruck, O., Gill, E.  
2007
  - **E/I-vector separation for safe switching of the GRACE formation** *AEROSPACE SCIENCE AND TECHNOLOGY*  
Montenbruck, O., Kirschner, M., D'Amico, S., Bettadpur, S.  
2006; 10 (7): 628-635
  - **Proximity operations of formation-flying spacecraft using an eccentricity/inclination vector separation** *JOURNAL OF GUIDANCE CONTROL AND DYNAMICS*  
D'Amico, S., Montenbruck, O.  
2006; 29 (3): 554-563
  - **Interferometric baseline performance estimations for multistatic synthetic aperture radar configurations derived from GRACE GPS observations** *JOURNAL OF GEODESY*  
Kohlhase, A. O., Kroes, R., D'Amico, S.  
2006; 80 (1): 28-39
  - **Evaluating interferometric baseline performance in a close formation flight by using relative GRACE GPS navigation solutions** *19th International Symposium on Space Flight Dynamics*  
Kohlhase, A., Kroes, R., D'Amico, S.  
2006
  - **GPS-Based Real-Time Navigation for the PRISMA Formation Flying Mission** *3rd ESA Workshop on Satellite Navigation User Equipment Technology, NAVITEC'2006*  
D'Amico, S., Gill, E., Fernandez, M., Montenbruck, O.  
2006
  - **The TanDEM-X Mission Design and Data Acquisition Plan** *6th European Conference on Synthetic Aperture Radar*  
Fiedler, H., Krieger, G., Werner, M., Reiniger, K., Eineder, M., D'Amico, S., Diedrich, E., Wickler, M.  
2006
  - **Autonomous satellite formation flying for the PRISMA technology demonstration mission** *AAS/AIAA 16th Space Flight Mechanics Meeting*  
Gill, E., Montenbruck, O., D'Amico, S., Persson, S.  
UNIVELT INC.2006: 331-342
  - **Next Generation GNSS for Navigation of Future SAR Constellations** *57th International Astronautical Congress*  
Enderle, W., Fiedler, H., De Florio, S., Krieger, G., Jochim, F., D'Amico, S., Dawson, S., Kellar, W.  
2006
  - **Relative Orbit Control Design for the PRISMA Formation Flying Mission** *AIAA Guidance, Navigation, and Control Conference*  
D'Amico, S., Gill, E., Montenbruck, O.  
2006
  - **Formation flying concept for close remote sensing satellites** *AAS/AIAA 15th Space Flight Mechanics Meeting*  
D'Amico, S., Montenbruck, O., Arbinger, C., Fiedler, H.  
UNIVELT INC.2005: 831-848
  - **Impact of orbit prediction accuracy on low earth remote sensing flight dynamics operations** *18th International Symposium on Space Flight Dynamics*  
Arbinger, C., D'Amico, S.  
ESA PUBLICATIONS DIVISION C/O ESTEC.2004: 73-78
  - **Generation of an optimum target trajectory for the TerraSAR-X repeat observation satellite** *18th International Symposium on Space Flight Dynamics*  
D'Amico, S., Arbinger, C., Kirschner, M., Campagnola, S.  
ESA PUBLICATIONS DIVISION C/O ESTEC.2004: 137-142
  - **Precise ground-in-the-loop orbit control for low earth observation satellites** *18th International Symposium on Space Flight Dynamics*  
Arbinger, C., D'Amico, S., Eineder, M.



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ESA PUBLICATIONS DIVISION C/O ESTEC.2004: 333–338

- **The GRACE Formation: Science Mode Pointing Performance Analysis** *3rd International Workshop on Satellite Constellations and Formations*  
Arbinger, C., D'Amico, S., Feucht, U., Finzi, A.  
2003

## PRESENTATIONS

- Autonomous Formation Flying: TanDEM-X, PRISMA, and Beyond - 19th IFAC Symposium on Automatic Control in Aerospace (September 3, 2013)
- Spacecraft Formation Flying: from Vision to Reality - Stanford University (October 6, 2012)
- DLR's Contributions to the PRISMA Mission - French Space Agency (CNES) (June 29, 2012)
- Formation Flying: from Vision to Mission - University of Wuerzburg (February 6, 2012)
- Flight Results from DLR's GNC Contributions to the PRISMA Mission - German Aerospace Center (DLR) (September 30, 2011)
- Navigation and Control of the PRISMA Formation: In-Orbit Experience - 18th World Congress of the International Federation of Automatic Control (IFAC) (August 29, 2011)
- PRISMA Formation Flying: From Vision to Mission - German Aerospace Center (DLR) (March 15, 2011)
- Relative GPS-based Navigation for PRISMA: Flight Results - Canadian Space Agency (CSA) (January 28, 2011)
- Spacecraft Formation Flying at DLR/GSOC - University of New South Wales (UNSW) (January 21, 2011)
- DLR's Contributions to PRISMA – Flight Results - ESA's Space Research and Technology centre (ESTEC) (November 16, 2010)
- TerraSAR-X Ground-in-the-loop Orbit Control - Taiwan National Space Organization (NSPO) (November 5, 2010)
- Autonomous Formation Flying based on GPS – PRISMA Flight Results - Taiwan National Space Organization (NSPO) (November 5, 2010)
- Autonomous Formation Flying Based on GPS - PRISMA Flight Results - 6th International Workshop on Satellite Constellation and Formation Flying (November 2, 2010)
- Spaceborne Autonomous Formation Flying Experiment (SAFE) on the PRISMA Mission - German Aerospace Center (January 27, 2010)
- Differential GPS: An Enabling Technology for Formation Flying Satellites - 7th IAA Symposium on Small Satellites for Earth Observation (May 6, 2009)
- Spacecraft Formation Flying: from Vision to Reality - National Aeronautics and Space Administration Ames (October 10, 2012)
- Formation Flying: from Vision to Mission - Jet Propulsion Laboratory (August 25, 2008)
- Autonomous Orbit Keeping and Formation Flying - French Space Agency (CNES) (November 22, 2007)
- Formation Flying of Spacecraft Using an Eccentricity/Inclination Vector Separation - German Aerospace Center (November 17, 2006)
- TerraSAR-X Ground-in-the-loop Orbit Control - French Space Agency (CNES) (July 6, 2006)
- TanDEM-X Formation Flying - French Space Agency (CNES) (July 6, 2006)