

复杂航天领域动态

2016年第7期（总第7期） 2016年12月

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本期概要：

本期动态专题扫描了空间协同设计与论证，扫描了空间任务仿真和空间任务评估2个技术方向的论文发表情况，并检索了美国国家航空航天局下属的喷气推进实验室在PDC方面论文发表的情况与欧洲航天局在CDF方面论文发表的情况。

【研究动态：空间协同设计与论证】

空间科学任务论证是一个复杂的系统工程，涉及轨道、姿态、结构、有效载荷、地面运行、结构、空间环境等多个领域。

本期动态专题扫描了空间协同设计与论证下面 2 个技术点的最新研究动态：空间任务仿真（Space mission simulation）和空间任务评估（Space mission evaluation）。

◇ 空间任务仿真（Space mission simulation）¹

在 EI 数据库检索到，2015 年以来在空间协同设计与论证的空间任务仿真点上有 38 篇最新的研究论文：

1.	Parallel satellite orbital situational problems solver for space missions design and control Atanassov, Atanas Marinov (Space Research and Technology Institute, BAS, Branch in Stara Zagora, P.O. Box 73, Bulgaria) Source: Advances in Space Research, v 58, n 9, p 1819-1826, November 1, 2016
2.	A virtual reality testbed for camera simulation in aerospace applications Stel, Thomas (Institute for Man-Machine Interaction, RWTH Aachen University, Aachen, Germany); Rossmann, Jurgen Source: Proceedings - AIMS 2015, 3rd International Conference on Artificial Intelligence, Modelling and Simulation, p 129-134, October 20, 2016, Proceedings - AIMS 2015, 3rd International Conference on Artificial Intelligence, Modelling and Simulation
3.	The end-satellite attitude and tether shimmy combined control method on tether-tugging system Hao, Zhidan (Beihang University, School of Astronautics, Beijing; 100191, China); Jia, Ying Hong; Zhong, Rui; Wang, Lu Source: Chinese Control Conference, CCC, v 2016-August, p 5911-5915, August 26, 2016, Proceedings of the 35th Chinese Control Conference, CCC 2016
4.	Serious games for team training and knowledge retention for long-duration space missions Ramachandran, Sowmya (Stottler Henke Associates, Inc., 1650 S. Amphlett Blvd., San Mateo; CA; 94402, United States); Presnell, Bart; Richards, Rob Source: IEEE Aerospace Conference Proceedings, v 2016-June, June 27, 2016, 2016 IEEE Aerospace Conference, AERO 2016
5.	Vector antenna and maximum likelihood imaging for radio astronomy Knapp, Mary (Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Science, Cambridge; MA, United States); Robey, Frank; Volz, Ryan; Lind, Frank; Fenn, Alan; Morris, Alex; Silver, Mark; Klein, Sarah; Seager, Sara Source: IEEE Aerospace Conference Proceedings, v 2016-June, June 27, 2016, 2016 IEEE Aerospace Conference, AERO 2016

¹ EI 数据库检索策略：(("Space mission") WN KY) AND ((simulation) WN KY) Remove Term +(2016 OR 2015) WN YR

6.	Deep space optical link ARQ performance analysis Clare, Loren (Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Dr., Pasadena; CA; 91109, United States); Miles, Gregory Source: IEEE Aerospace Conference Proceedings, v 2016-June, June 27, 2016, 2016 IEEE Aerospace Conference, AERO 2016
7.	Large Area X-ray Proportional Counter (LAXPC) instrument onboard ASTROSAT Yadav, J.S. (Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai; 400005, India); Agrawal, P.C.; Antia, H.M.; Chauhan, Jai Verdhani; Dedhia, Dhiraj; Katoch, Tilak; Madhwani, P.; Manchanda, R.K.; Misra, Ranjeev; Pahari, Mayukh; Paul, B.; Shah, Parag Source: Proceedings of SPIE - The International Society for Optical Engineering, v 9905, 2016, Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray
8.	Tuning of controller for an aircraft flight control system based on particle swarm optimization Kiyak, Emre (Department of Avionics, Anadolu University, Eskisehir, Turkey) Source: Aircraft Engineering and Aerospace Technology, v 88, n 6, p 799-809, 2016
9.	High-contrast imaging and high-resolution spectroscopy observation of exoplanets Wang, Ji (Department of Astronomy, California Institute of Technology, Pasadena; CA; 91125, United States); Mawet, Dimitri; Hu, Renyu; Benneke, Björn Source: Proceedings of SPIE - The International Society for Optical Engineering, v 9911, 2016, Modeling, Systems Engineering, and Project Management for Astronomy VII
10.	Study on supporting force sensing and control during large aperture space mirror test Zhang, Long (Shanghai Institute of Technical Physics, Chinese Academy of Sciences, Shanghai; 200083, China); Hu, Wenqi; Zheng, Liehua; Hao, Peiming Source: Proceedings of SPIE - The International Society for Optical Engineering, v 9683, 2016, 8th International Symposium on Advanced Optical Manufacturing and Testing Technologies: Advanced Optical Manufacturing Technologies
11.	Simulating long duration deep space missions Morgan, Eleanor E. (United States Air Force, Nellis AFB; NV; 89191, United States) Source: AIAA Space and Astronautics Forum and Exposition, SPACE 2016, 2016, AIAA Space and Astronautics Forum and Exposition, SPACE 2016
12.	End-To-end simulations and planning of a small space telescopes: Galaxy Evolution Spectroscopic Explorer: A case study Heap, Sara (NASA's Goddard Space Flight Center, Mail Code 551, Greenbelt; MD; 20771, United States); Folta, David; Gong, Qian; Howard, Joseph; Hull, Tony; Purves, Lloyd Source: Proceedings of SPIE - The International Society for Optical Engineering, v 9911, 2016, Modeling, Systems Engineering, and Project Management for Astronomy VII
13.	Study on initiative disperse fault-tolerant control method based on signal reconstruction of re-configurable mechanical arm Cheng, Hongmei (Shanxi Traffic Vocational and Technical College, Shanxi, China) Source: Romanian Review Precision Mechanics, Optics and Mechatronics, v 2016, n 50, p 308-315, 2016
14.	A dedicated end-to-end simulator for Euclid instrument operations Gregorio, Anna (Dipartimento di Fisica, Università degli Studi di Trieste, Trieste, Italy); Battaglia, Paola; Romelli, Erik; Buenadicha, Guillermo; Franco, Raffaella Source: 14th International Conference on Space Operations, 2016, 2016, 14th International Conference on Space Operations

15.	<p>A unified approach for optical survey strategy design of resident space objects</p> <p>Nafi, Akhter Mahmud (Utah State University, Department of Mechanical and Aerospace Engineering, 4130 Old Main Hill, Logan; UT; 84322-4130, United States); Bernard, Arun; Fujimoto, Kohei Source: AIAA/AAS Astrodynamics Specialist Conference, 2016, 2016, AIAA/AAS</p>
16.	<p>Engine design attributes relative to HEU and LEU core approaches for a small thrust NTP</p> <p>Joyner, Claude Russell (Aerojet Rocketdyne, P.O. Box 109680, M/S 712-67, West Palm Beach; FL; 33410, United States); Levack, Daniel J. H.; Jennings, Ty; Guley, Marc; Eades, Micheal; Patel, Vishal Source: 52nd AIAA/SAE/ASEE Joint Propulsion Conference, 2016, 2016, 52nd AIAA/SAE/ASEE Joint Propulsion Conference, 2016</p>
17.	<p>Semi-blind separation of galaxy spectra from a mixture obtained by slitless spectroscopy</p> <p>Selloum, Ahmed (IRAP, CNRS, Université de Toulouse, UPS-OMP, 14, av. Edouard Belin, Toulouse, France); Hosseini, Shahram; Contini, Thierry; Deville, Yannick Source: 2015 23rd European Signal Processing Conference, EUSIPCO 2015, p 1641-1645, December 22, 2015, 2015 23rd European Signal Processing Conference, EUSIPCO 2015</p>
18.	<p>Space object ground-based surveillance scheduling based on genetic-simulated annealing algorithm</p> <p>Yan, Qing-Qing (Department of Graduate Management, Equipment Academy, Beijing, China); Shen, Huai-Rong; Shao, Qiong-Ling Source: Xi Tong Gong Cheng Yu Dian Zi Ji Shu/Systems Engineering and Electronics, v 37, n 12, p 2764-2771, December 1, 2015 Language: Chinese</p>
19.	<p>Imaging simulation of the microwave radiometer aboard the MICAP for sea surface salinity measurement</p> <p>Zhang, Cheng (Key Laboratory of Microwave Remote Sensing, Chinese Academy of Sciences, National Space Science Center, Chinese Academy of Sciences, Beijing, China); Liu, Hao; Wu, Lin; Wu, Ji Source: International Geoscience and Remote Sensing Symposium (IGARSS), 2015-November, p 3469-3472, November 10, 2015, 2015 IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2015 - Proceedings Database: Compendex</p>
20.	<p>ALR - Laser altimeter for the ASTER deep space mission. Simulated operation above a surface with crater</p> <p>De Brum, A.G.V. (Universidade Federal Do ABC, UFABC, Santo-André, SP, Brazil); Da Cruz, F.C.; Hetem, A. Source: Journal of Physics: Conference Series, v 641, n 1, October 7, 2015, XVII Brazilian Colloquium on Orbital Dynamics, CBDO 2014</p>
21.	<p>Astrod-I orbit design and mission simulation</p> <p>Wu, An-Ming (National Space Organization, Hsinchu City, Taiwan); Ni, Wei-Tou; Wang, Gang Source: Proceedings of the International Astronautical Congress, IAC, v 1, p 417-421, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space – The Gateway for Mankind’s Future</p>
22.	<p>Accuracy of determining the aberrated coordinates of a relativistic interstellar spacecraft using quasars' reference frame</p> <p>Calabró, Emanuele (Department of Physics and Earth Sciences, University of Messina (IT), Minister of Instruction, University and Research (IT), Italy) Source: Advances in the Astronautical Sciences, v 153, p 1353-1382, 2015, 2nd IAA Conference on Dynamics and Control of Space Systems, 2014</p>

23.	Orbit determination via adaptive Gaussian swarm optimization Kiani, Maryam (Department of Aerospace Engineering, Sharif University of Technology, Tehran, Iran); Pourtakdoust, Seid H. Source: Advances in Space Research, v 55, n 4, p 1028-1037, February 15, 2015
24.	Robisat mission: Double unit cubesat thermal analysis in context of QB50 mission Balan, Mugurel (Institute of Space Science, Romania); Trusculescu, Marius Florin; Dragasanu, Claudiu Gabriel; Radu, Silvana; Cherciu, Claudiu Source: Proceedings of the International Astronautical Congress, IAC, v 8, p 6507-6512, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future
25	Metrology for AGP - Astrometric Gravitation Probe Gai, Mario (Istituto Nazionale di Astrofisica (INAF), Osservatorio Astrofisico di Torino (OATo), V. Osservatorio, 20, Pino Torinese (TO), Italy); Vecchiato, Alberto; Busonero, Deborah; Riva, Alberto; Lattanzi, Mario G.; Pisani, Marco Source: 2nd IEEE International Workshop on Metrology for Aerospace, MetroAeroSpace 2015 - Proceedings, p 329-334, August 5, 2015, 2nd IEEE International Workshop on Metrology for Aerospace, MetroAeroSpace 2015 - Proceedings
26.	Performance analysis and experimental design for Differential Optical Shadow Sensor Hou, Zhendong (Research Center of Satellite Technology, Harbin Institute of Technology, Harbin; 150001, China); Wang, Zhaokui; Zhang, Yulin Source: Advances in the Astronautical Sciences, v 153, p 607-616, 2015, 2nd IAA Conference on Dynamics and Control of Space Systems, 2014
27.	The bioinformatics of nucleotide sequence coding for proteins requiring metal coenzymes and proteins embedded with metals Tremberger, G. (CUNY, Queensborough Community College, 222-05 56th Ave., Bayside; NY, United States); Dehipawala, Sunil; Cheung, E.; Holden, T.; Sullivan, R.; Nguyen, A.; Lieberman, D.; Cheung, T. Source: Proceedings of SPIE - The International Society for Optical Engineering, v 9606, 2015, Instruments, Methods, and Missions for Astrobiology XVII
28.	Simulating a proactive ad-hoc network protocol for Federated Satellite Systems Lluch, Ignasi (Skolkovo Institute of Science and Technology, 100 Novaya str., Skolkovo, Moscow Region, Russia); Grogan, Paul T.; Pica, Udrivolf; Golkar, Alessandro Source: IEEE Aerospace Conference Proceedings, v 2015-June, June 5, 2015, 2015 IEEE Aerospace Conference, AERO 2015
29	Orbital maneuvers and space rendezvous Butikov, Eugene I. (St. Petersburg State University, St.Petersburg, Russia) Source: Advances in Space Research, v 56, n 11, p 2582-2594, December 1, 2015
30.	Simulation studies of the expected proton rejection capabilities of CALET Palma, Francesco (University of Rome Tor Vergata, INFN, Italy) Source: Proceedings of Science, v 30-July-2015, 2015, 34th International Cosmic Ray Conference, ICRC 2015
31.	Conceptual design and performance simulation of a space hybrid motor Tahmasebi, Ehsan A. (Dipartimento di Energia, Politecnico di Milano, Milano, Italy); Karimi M, Hasan Source: Aircraft Engineering and Aerospace Technology, v 87, n 1, p 92-99, January 5, 2015
32	RoBiSAT mission: Double unit cubesat power estimation in context of QB50 mission Balan, Mugurel (Institute of Space Science, Romania); Dragasanu, Claudiu Gabriel; Trusculescu, Marius Florin; Radu, Silvana; Cherciu, Claudiu Source: Proceedings of the International Astronautical Congress, IAC, v 9, p 7163-7169, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future

33.	Analysis of the impact of temporal disturbances on the science signals of the space mission microscope by using wavelet transformation tools Selig, Hanns (ZARM, University of Bremen, Germany); Gierse, Andreas; Bremer, Stefanie; Rievers, Benny; List, Meike Source: Proceedings of the International Astronautical Congress, IAC, v 1, p 391-398, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future
34.	An Efficient Calibration Scheme for Satellite Onboard Receive Digital Beamformer Zalawadia, Khyati (EandC Department, BITs Edu Campus, Vadodara, India); Jain, Pratik; Shah, Himanshu; Dalal, Upena Source: IETE Journal of Research, v 61, n 6, p 590-596, November 2, 2015
35.	Implementation of the JEM-EUSO space mission infrared camera simulation and reconstruction code in the offline framework Del Peral, L. (SPace and ASTroparticle (SPAS) Group, UAH, Madrid, Spain); Paul, T.; Soriano, J.F.; Carretero, J.H.; Sáez-Cano, G.; Rodríguez Frías, M.D. Source: Proceedings of Science, v 30-July-2015, 2015, 34th International Cosmic Ray Conference, ICRC 2015
36.	Designing a reporting tool for space mission simulations for use in elementary schools Ager, Danielle (Department of Systems and Information Engineering, University of Virginia, United States); Davis, Kiki; Savino, Stefano Di; Lonkar, Apoorva; Bailey, Reid Source: 2015 Systems and Information Engineering Design Symposium, SIEDS 2015, p 330-335, June 2, 2015, 2015 Systems and Information Engineering Design Symposium, SIEDS 2015
37	Reactive execution for solving plan failures in planning control applications Guzman, Cesar (Universitat Politècnica de València, Valencia, Spain); Castejon, Pablo; Onaindia, Eva; Frank, Jeremy Source: Integrated Computer-Aided Engineering, v 22, n 4, p 343-360, August 27, 2015
38.	Characterization and development of an event-driven hybrid CMOS x-ray detector Griffith, Christopher (The Pennsylvania State University) Source: ProQuest Dissertations and Theses Global, 2015

◇ 空间任务评估 (Space mission evaluation) ²

在 EI 数据库检索到, 2015 年以来在空间协同设计与论证的空间任务评估上有 14 篇最新的研究论文:

1.	Software Reliability Analysis of NASA Space Flight Software: A Practical Experience Sukhwani, Harish (Department of Electrical and Computer Engineering, Duke University, Durham, United States); Alonso, Javier; Trivedi, Kishor S.; McGinnis, Issac Source: Proceedings - 2016 IEEE International Conference on Software Quality, Reliability and Security, QRS 2016, p 386-397, October 12, 2016, Proceedings - 2016 IEEE International Conference on Software Quality, Reliability and Security, QRS 2016
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²EI 数据库检索策略: (((("Space mission") WN KY) AND ({{evaluation}} WN KY)) Remove Term +(2016 OR 2015) WN YR

2.	<p>Improved oceanographic measurements with cryosat sar altimetry: Application to the coastal zone and arctic</p> <p>Cotton, P.D. (Satellite Oceanographic Consultants, 49 Seal Road, Bramhall, Stockport; SK7 2JS, United Kingdom); Garcia, P.N.; Cancet, M.; Andersen, O.; Stenseng, L.; Martin, F.; Cipollini, P.; Calafat, F.M.; Passaro, M.; Restano, M.; Ambr&oacute;zio, A.; Benveniste, J. Source: European Space Agency, (Special Publication) ESA SP, v SP-740, August 1, 2016, Proceedings of Living Planet Symposium 2016</p>
3.	<p>Quality attributes for mission flight software: A reference for architects</p> <p>Wilmot, Jonathan (NASA, Goddard Spaceflight Center, Greenbelt; MD; 20771, United States); Fesq, Lorraine; Dvorak, Dan Source: IEEE Aerospace Conference Proceedings, v 2016-June, June 27, 2016, 2016 IEEE Aerospace Conference, AERO 2016</p>
4.	<p>Space-time dynamics estimation from space mission tracking data</p> <p>Dirkx, D. (Delft University of Technology, Kluyverweg 1, Delft; HS, Netherlands); Noomen, R.; Visser, P.N.A.M.; Gurvits, L.I.; Vermeersen, L.L.A. Source: Astronomy and Astrophysics, v 587, March 1, 2016</p>
5.	<p>A unified approach for optical survey strategy design of resident space objects</p> <p>Nafi, Akhter Mahmud (Utah State University, Department of Mechanical and Aerospace Engineering, 4130 Old Main Hill, Logan; UT; 84322-4130, United States); Bernard, Arun; Fujimoto, Kohei Source: AIAA/AAS Astrodynamics Specialist Conference, 2016, 2016, AIAA/AAS Astrodynamics Specialist Conference, 2016</p>
6.	<p>Research on the optimum scrubbing strategy for space used SRAM-based FPGA</p> <p>Fan, Zhang (Beijing Microelectronics Technology Institute, China); Yuanfu, Zhao; Lei, Chen; Xuewu, Li Source: Proceedings of the International Astronautical Congress, IAC, v 11, p 8225-8231, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>
7.	<p>Research on the optimum scrubbing strategy for space used SRAM-based FPGA</p> <p>Fan, Zhang (Beijing Microelectronics Technology Institute, China); Yuanfu, Zhao; Lei, Chen; Xuewu, Li Source: Proceedings of the International Astronautical Congress, IAC, v 11, p 8225-8231, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>

8.	<p>Orion EFT-1 propulsion test results</p> <p>Norris, Scott D. (Lockheed Martin Space Systems Company, PO Box 179 Mail Stop W3004, Denver; CO, United States); Gell, Amber S.; Freeman, Rich; Paisley, Johnathan; Bremer, Frank; McKay, Heather Source: 51st AIAA/SAE/ASEE Joint Propulsion Conference, 2015, 51st AIAA/SAE/ASEE Joint Propulsion Conference</p>
9.	<p>Major factors of the prophylactic effectiveness of locomotion and resistance training in long-duration space flight</p> <p>Fomina, Elena (RF SSC - Institute of Biomedical Problems, Russian Academy of Sciences, Russia); Kukoba, Tatyana; Lysova, Natalya; Savinkina, Alexandra Source: Proceedings of the International Astronautical Congress, IAC, v 1, p 120-126, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>
10.	<p>Parabolic flight campaigns in Europe with the AIRBUS A300 ZERO G: An evaluation of the scientific outcome</p> <p>Pletser, Vladimir (Microgravity Payloads and Platforms Div., Science Dept., Human Space Flight and Operations Directorate, ESA-ESTEC, HSO-UPS, P.O. Box 299, AG Noordwijk; NL-2200, Netherlands); Rouquette, Sebastien; Friedrich, Ulrike; Clervoy, Jean-Francois; Gharib, Thierry; Gai, Frederic; Mora, Christophe Source: Proceedings of the International Astronautical Congress, IAC, v 1, p 481-490, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>
11.	<p>Reliability analysis of multi-launch sample return missions using the space mission architecture and risk analysis tool (smart)</p> <p>Wang, Patrick S. (University of Stuttgart, Germany); Ono, Masahiro; Lock, Robert E. Source: Proceedings of the International Astronautical Congress, IAC, v 11, p 8365-8371, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>
12.	<p>H2O impact on CO2removal performance of 5A molecular sieve in space station</p> <p>Yang, Dongsheng (School of Aeronautic Science and Engineering, Beijing University of Aeronautics and Astronautics, Beijing, China); Liu, Meng; Pang, Liping; Yu, Qingni; Huang, Yong Source: Beijing Hangkong Hangtian Daxue Xuebao/Journal of Beijing University of Aeronautics and Astronautics, v 41, n 8, p 1485-1491, August 1, 2015 Language: Chinese</p>
13.	<p>Performance of the Spanish infrared camera onboard the EUSO-Balloon (CNES) flight on August 25, 2014</p> <p>Soriano, J.F. (Space and Astroparticle (SPAS) Group, UAH, Madrid, Spain); Del Peral, L.; Morales De Los Ríos, J.A.; Prieto, H.; Sáez-Cano, G.; Joven, E.; Reyes, M.; Martín, Y.; Licandro, J.; Merino, A.; López, L.; Sánchez, J.L.; Franchini, S.; Roibás, E.; Rodríguez Frías, M.D. Source: Proceedings of Science, v 30-July-2015, 2015, 34th International Cosmic Ray Conference, ICRC 2015</p>

14.	<p>Analysis and performance evaluation of new coding options for space telecommand links - Part I: AWGN channels</p> <p>Baldi, M. (Dipartimento di Ingegneria dell'Informazione, Universit Politecnica Delle Marche, Via Brece Bianche, Ancona, Italy); Chiaraluce, F.; Garelo, R.; Maturo, N.; Aguilar Sanchez, I.; Cioni, S. Source: International Journal of Satellite Communications and Networking, v 33, n 6, p 509-525, November/December 2015</p>
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【机构扫描】

◇ 喷气推进实验室

英文名称: Jet Propulsion Laboratory, JPL

网址: <https://www.nasa.gov/centers/jpl/home/index.html>

JPL 喷气推进实验室位于加利福尼亚州帕萨迪那的美国国家航空航天局一个下属机构, 始建于 1936 年, 由当年加州理工学院的教授西奥多·冯·卡门领导创建, 负责为美国国家航空航天局开发和管理无人空间探测任务。

在 EI 数据库检索到, JPL 在 PDC 有 3 论文³。

1.	Physical and infrastructure modeling for the 2015 PDC asteroid threat exercise Boslough, Mark (Sandia National Laboratories, PO Box 5800, Albuquerque; NM; 87185, United States); Chodas, Paul; Ezzedine, Souheil; Jennings, Barbara; Fogleman, Bill Source: IEEE Aerospace Conference Proceedings, v 2016-June, June 27, 2016, 2016 IEEE Aerospace Conference, AERO 2016
2.	Low-threshold optical parametric oscillations in a whispering gallery mode resonator Fürst, J.U. (Max Planck Institute for the Science of Light, Erlangen, Germany); Strekalov, D.V.; Elser, D.; Aiello, A.; Andersen, U.L.; Marquardt, Ch.; Leuchs, G. Source: 2011 Conference on Lasers and Electro-Optics Europe and 12th European Quantum Electronics Conference, CLEO EUROPE/EQEC 2011, 2011, 2011 Conference on Lasers and Electro-Optics Europe and 12th European Quantum Electronics Conference, CLEO EUROPE/EQEC 2011
3.	Low-threshold optical parametric oscillations in a whispering gallery mode resonator Fürst, J.U. (Max Planck Institute for the Science of Light, Erlangen, Germany); Strekalov, D.V.; Elser, D.; Aiello, A.; Andersen, U.L.; Marquardt, Ch.; Leuchs, G. Source: Physical Review Letters, v 105, n 26, December 27, 2010

³ EI 数据库检索策略: (((pdc) WN KY) AND ((Jet Propulsion Laboratory) WN AF))

◇ 欧洲航天局

英文名称: European Space Agency


机构网址: <http://www.esa.int/>

在 EI 数据库检索到, ESA 2014 年以来 CDF 方面共有 4 论文⁴。


1.	<p>Simplified spacecraft vulnerability assessments at component level in early design phase at the European Space Agency's Concurrent Design Facility Kempf, Scott (Fraunhofer EMI, Germany); Schäfer, Frank K.; Cardone, Tiziana; Ferreira, Ivo; Gerené, Sam; Destefanis, Roberto; Grassi, Lilith Source: Acta Astronautica, v 129, p 291-298, December 1, 2016</p>
2.	<p>The XMM deep survey in the CDF-S: VII. UV catalogue of the optical monitor observations Antonucci, M. (Dipartimento di Fisica, Universit di Roma Tor Vergata, via della Ricerca Scientifica 1, Roma, Italy); Talavera, A.; Vagnetti, F.; Trevese, D.; Comastri, A.; Paolillo, M.; Ranalli, P.; Vignali, C. Source: Astronomy and Astrophysics, v 574, February 1, 2015</p>
3.	<p>I AC-15,A6,3,4,x31608 Simplified s/c vulnerability assessments at component level in early design phase at esa's cdf Kempf, Scott (Fraunhofer EMI, Germany); Schflfer, Frank K.; Cardone, Tiziana; Ferreira, Ivo; Gereine, Sam; Destefanls, Roberto; Grass, Lilith Source: Proceedings of the International Astronautical Congress, IAC, v 3, p 2087-2098, 2015, 66th International Astronautical Congress 2015, IAC 2015: Space - The Gateway for Mankind's Future</p>
4.	<p>OPS-SAT: A ESA nanosatellite for accelerating innovation in satellite control Evans, David (ESA/ESOC Darmstadt, D-64293, Germany); Merri, Mario Source: 13th International Conference on Space Operations, SpaceOps 2014, 2014, 13th International Conference on Space Operations, SpaceOps 2014</p>

⁴ EI 数据库检索策略: (((CDF) WN KY) AND ((esa) WN AF)) Remove Term +(2016 OR 2015 OR 2014) WN YR


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