

Ivan AGOSTINELLI

PERSONAL DATA

PLACE AND DATE OF BIRTH: Rome, Italy | 20 Oct 1993

ADDRESS:

PHONE:

E-MAIL:

LINKEDIN:

WORK EXPERIENCE AND SCOLARSHIPS

NOV 2020-PRESENT	<p><i>Research Fellowship (Assegno di Ricerca: "Sviluppo del modulo software Conjunction Analysis per il sistema SPOT") at ARCALab Space Automation and Robotics laboratory, School of Aerospace Engineering, "Sapienza University of Rome"</i></p> <p>My research focuses on Star Trackers' software for image processing. I am Co-PI for the ASI's "SPOT - Star sensor image on-board Processing for Orbiting objects detection" project. The project is about Star Trackers application in the field of Space Surveillance and Tracking. I am in charge of codes test in MATLAB environment in preparation of SoC implementation. I am involved in hardware in the loop simulations for the on-board routines and Ground modules development, design and documentation management.</p>
DEC 2019-OCT 2020	<p><i>Junior Research Fellowship (Borsa di studio: "SPOT - Star sensor Image on-board Processing for Orbiting objects deTectioN") at ARCALab Space Automation and Robotics laboratory, School of Aerospace Engineering, "Sapienza University of Rome"</i></p> <p>My research focuses on Star Trackers' software for image processing. I am in charge of technical development, codes development and software in the loop simulations. This activity is part of ASI's SPOT Project "Star sensor image on-board Processing for Orbiting objects detection" and is about Star Trackers application in the field of Space Surveillance and Tracking.</p>
JAN 2020-PRESENT	<p><i>Collaboration with "Leonardo", Campi di Bisenzio, Florence</i></p> <p>In the framework of the present activity, I am in charge of the development of high angular rate determination algorithms for star sensors in the new AASTR project of Leonardo company from stars' measurements only.</p>

EDUCATION

- OCTOBER 2019 Master's Degree in SPACE and ASTRONAUTICAL Engineering,
Sapienza University of Rome, Rome (10/15/19)
106/110
Thesis: "Autonomous GNC for a Lunar Rover: design and experimentation"
| Advisor: Prof. Fabio CURTI
| Co-advisor: Eng. Vincenzo SCHIATTARELLA
SUBJECTS: Space Flight Mechanics & Systems, Control Systems, Space Navigation, Spacecraft Design, Interplanetary trajectories and missions, Telecommunications.
- JULY 2016 Bachelor's Degree in AEROSPACE Engineering
Sapienza University of Rome, Rome (11/04/16)
Thesis: "Analisi sistema EDL della missione MSL"
| Advisor: Fabio CURTI
| Co-advisor: Dr. Luigi ANSALONE
SUBJECTS: Flight Mechanics, Aerodynamics, Numerical methods, Aerospace Structures & Propulsion, Telecommunication systems.
- APR 2016 SPACE SYSTEMS LABORATORY
Sapienza University of Rome, Rome
CanSat design and electronical system realization
- JULY 2012 **Liceo Classico "C. Tacito"**, Rome
Studies focused on Italian literature, Ancient Greek, Ancient Latin, Philosophy, Art.

PUBLICATIONS, PRESENTATIONS AND CERTIFICATES

- APR 2021 "Hardware Implementation of the SPOT payload for Orbiting Objects Detection using Star Sensors", *M. S. Farissi, I. Agostinelli, M. Mastrofini, F. Curti, C. Marzo, C. Facchinetti, L. Ansalone*
IAC 2021, 25-28 Oct, Dubai
- APR 2021 "Optimization of Hopping Trajectories for Asteroids Surface Exploration", *A. Carbone, I. Agostinelli, A. D'Ambrosio, F. Curti*
IAC 2021, 25-28 Oct, Dubai
- SEP 2021 "Gyroless Angular Rate Determination Based on Star Sensor Images", **I. Agostinelli, F. Curti**
AIDAA XXVI International Congress, Virtual
- SEP 2021 "Star sensor image on-board Processing for orbiting Objects deTection-SPOT", *F. Curti, M. Mastrofini, I. Agostinelli, C. Facchinetti, L. Ansalone, A. Tuozi*
AIDAA XXVI International Congress, Virtual
- FEB 2021 "Adaptive control for proximity maneuvers around asteroids using Extreme Learning Machine-based gravity field estimation", *A. D'Ambrosio, G. Conforti, I. Agostinelli, F. Curti*
31st AAS/AIAA Space Flight Mechanics Meeting, Virtual
- JAN 2020 POSTER PRESENTATION AND CO-AUTHOR IN: "Star sensor image on-board Processing for orbiting Objects deTection-SPOT", *F. Curti, A. D'Ambrosio, I. Agostinelli, M. Mastrofini, M. Parisse, C. Facchinetti, L. Ansalone, A. Tuozi*
5th IAA Conference on University Satellite Missions and CubeSat Workshop, Rome
- OCT 2019 PEGASUS CERTIFICATE, Master's Degree in Space and Astronautical Engineering, Sapienza University of Rome.
- APR 2017 NASA INTERNATIONAL SPACE APPS CHALLENGE, Rome.
Team Leader of the "Sfasati Team" for the challenge "You Are My Sunshine" relative to solar panels.

LANGUAGES

ITALIAN: Mother tongue
ENGLISH: Fluent (Listening: B2, Reading: C1, Spoken: B2, Written: C1)

COMPUTER SKILLS

Basic Knowledge: 3D PRINTING, STK, SIMULINK, \LaTeX
Advanced Knowledge: MATLAB, Microsoft Office: Excel, Word, PowerPoint, PYTHON

TECHNICAL SKILLS

Technical Knowledge: Star Trackers, Astrodynamics, Optical sensors, Rover, 3D printing

INTERESTS, ACTIVITIES AND MEMBERSHIPS

Technology, Programming.

Guitarist in a band, Amateur Banjo Player, Amateur Keyboard Player, Agonist Swimmer, Travelling, Books.

"Società Italiana di Meccanica Celeste e Astrodinamica" (SIMCA): Ordinary Member

DRIVING LICENSE: B

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Signature: