

CURRICULUM VITAE**Michèle R. Lavagna****POSIZIONE ATTUALE E CONTATTI**

Nome Cognome:	Michèle R.Lavagna
Posizione attuale:	Professore di I Fascia in Meccanica del Volo
Università:	Politecnico di Milano
Dipartimento:	Scienze e Tecnologie Aerospaziali

Indirizzo lavorativo:	
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FORMAZIONE

- 2001: Dottorato di Ricerca in Ingegneria Aerospaziale conseguito presso il Politecnico di Milano.
- Titolo della tesi: *Space Systems for Interplanetary Missions: Automation of the Preliminary Design*.
Relatore Prof.ssa Amalia Ercoli Finzi
- 1998: Laurea Magistrale in Ingegneria Aeronautica conseguita presso il Politecnico di Milano, pieni voti
- Titolo della tesi: *Dynamics and control of a tethered spinning space station with controlled gravity*,
Relatore Prof.ssa Amalia Ercoli Finzi

LINGUA

- Madrelingua: Italiano
- Livello L1: Inglese
- Livello L2: Francese

ATTIVITA' ACCADEMICHE E PROFESSIONALI

2021-in corso	Membro del Gruppo di esperti a supporto tecnico-scientifico del Comitato interministeriale per le politiche relative allo spazio e alla ricerca aerospaziale - COMINT
2021- in corso	Nominata dal Ministro della Ricerca e Università quale membro Esperto nazionale per il Cluster 4, Digital, Industry and Space, per il Programma Quadro Horizon Europe
2021 -in Corso	Nominata esperto valutatore per la revisione del centro di ricerca tedesco DLR di Brema
2020	Nominata dal MISE membro della commissione valutatrice per la selezione di esperti per la costituzione del Comitato per lo sviluppo dell'industria aeronautica, legge 808
2020 – in corso	Full member dell' International Academy of Astronautics
2020-in corso	Supervisor di tre ESRs nel programma Marie Sklodowska-Curie Action - Innovative Training Network ASCENSION 2020-2023.
2020 – in corso	Presidente del Comitato tecnico scientifico per la realizzazione del International Workshop on Satellite Constellation and Formation Flying a Milano, presso il Politecnico di Milano
2020 – in corso	Membro della Commissione di gestione dei corsi Passion in Action del Politecnico di Milano
2019 –in corso	Membro della EU - Copernicus Academy
2019-in corso	Membro affiliato dell' Istituto Nazionale di Astrofisica (INAF)
2019 – in corso	Professore di Prima Fascia in Meccanica del Volo in servizio presso il Politecnico di Milano
2018-in corso	Membro del Comitato di Gestione dell'accordo Quadro tra Politecnico di Milano e INAF OAB – Istituto Nazionale di Astrofisica-Osservatorio Astronomico di Brera
2018- in corso	Membro del Comitato di esperti a supporto della divisione di esplorazione umana e robotica dell'Agenzia Spaziale Europea - HESAC (Human & robotic Exploration Science Advisory Committee) o
2018-2020	Supervisor per la Marie Sklodowska-Curie individual fellowships GRAINS “Gravitation of Rubble-pile Asteroid with Internal N-body Structure”
2017- 2019	Membro della Commissione Scientifica del Dipartimento di Scienze e Tecnologie Aerospaziali del Politecnico di Milano
2017-2019	Valutatore per i Progetti SME Horizon 2020 del Programma Quadro Europeo Horizon 2020
2018 – in corso	Membro del Gruppo di lavoro per la missione AIDA-HERA (NASA-ESA)
2017-in corso	Membro del Comitato Direttivo del laboratorio interdipartimentale di Geomatica e Osservazione della Terra, del Politecnico di Milano
2016-in corso	Membro del comitato di Gestione dell'Accordo Quadro stipulato tra Politecnico di Milano e Agenzia Spaziale Italiana
2015-in corso	Membro del Gruppo di Lavoro scientifico del payload PROSPECT in prossimo volo su Luna 27; coordinatore del gruppo relativo al drill (2019-in corso)
2015- in corso	Membro del Lunar Sample Return Science Definition Team dell'Agenzia Spaziale Europea
2014 – 2020	Corresponding Member dell' International Academy of Astronautics
2014-2018	Coordinatore per il Gruppo di Lavoro di Space Robotics Working nella piattaforma SPIN-IT, in supporto al lavoro della Agenzia Spaziale Italiana, nel contesto della preparazione di H2020 SRC PERASPERA

2014-2018	Rappresentante del Politecnico di Milano per il progetto di ricerca italo-cinese Moon coordinato dall'Agenzia Spaziale Italiana
2014-2015	Membro della Task Force del Cluster Nazionale Aerospaziale (CTNA) in qualità di referente scientifico per la Lombardia per il progetto <i>Pro-Italia</i>
2015-in corso	<p>Fondatrice e responsabile del Gruppo di ricerca ASTRA (Advanced Space technologies for Robotics and Astrodynamics), composto da 1 Ricercatore a tempo determinato, 2 PostDocs, 13 Ph.D. candidates e 1 fresh engineer; il Gruppo svolge attività di ricerca teorica e applicate attraverso studi interni e finanziati sia a livello nazionale che internazionale.</p> <p>Fondatrice e responsabile dei Laboratori ASTRA che comprendono alcune infrastrutture per la sperimentazione spaziale: struttura DANCE costituita da 2 veicoli a 5 gradi di libertà (uno in sviluppo) mobili su piano a basso attrito per sperimentazione in campo robotico orbitale, volo di prossimità, volo in formazione.; struttura ARGOS per lo sviluppo e verifica di algoritmi per la guida navigazione e controllo relativi basati su utilizzo di immagini e algoritmi di intelligenza artificiale, dotata di diorama e mockup satellitari e di braccio robotico di movimentazione; impianto prototipale per estrazione di acqua da suolo lunare- ISRU; struttura FLAMINGOs dotata di 2 bracci robotici – in cessione da ASI - a 6 gradi di libertà per ricerca in ambito di dinamica di contatto e On Orbit Servicing testing (in sviluppo).</p>
2011-2016	Membro della commissione di valutazione, nominate dal MUR, per il progetto Bandiera ASTRI (Astrofisica con Specchi a Tecnologia Replicante Italiana),
2013- 2019	Professore confermato di II Fascia in Meccanica del Volo in servizio presso il Politecnico di Milano
2012	Abilitazione Scientifica Nazionale a Professore Ordinario
2011-2013	Professore di II Fascia in Meccanica del Volo in servizio presso il Politecnico di Milano
2009-in corso	Membro del comitato tecnico del International Workshop on Satellite Constellation and Formation Flying
2008-in corso	Membro del comitato scientifico del simposio di Astrodinamica per lo International Astronautical Congress - IAC – conferenza dell'International Astronautical Federation.
2008-in corso	Membro dello Space Exploration & Earth Observation Working Group nella piattaforma interregionale NEREUS (Network of European Regions Using Space Technologies) platform
2008-2018	Presidente della Commissione di Laurea per il Dipartimento di Scienze e Tecnologie Aerospaziali di Politecnico di Milano
2008-2010	CEO di SME per lo sviluppo di tecnologie avanzate in ambito spazio
2008	CO-fondatore di una SME di 5 soci per lo sviluppo di tecnologie avanzate in ambito spazio
2008	Membro della commissione di valutazione per il progetto italo-francese Symbol-X project, su mandato dell'Agenzia Spaziale Italiana
2007- in corso	Membro del collegio dei docenti del Corso di Dottorato in Ingegneria Aerospaziale. Presso il Politecnico di Milano.
2004-2010	Ricercatore confermato in Meccanica del Volo presso il Politecnico di Milano, in servizio al Dipartimento di Scienze e Tecnologie Aerospaziali.
2001-2004	PostDoc presso il Politecnico di Milano, in servizio al Dipartimento di Scienze e Tecnologie Aerospaziali.

2001-2003	Ingegnere di Sistema per il progetto universitario Palamede. Per la realizzazione di un micro-satellite universitario.
1999-2000	Visiting Ph.D. presso European Space Operation Centre (ESOC) per lo sviluppo di un prototipo di pianificatore autonomo per la missione Proba 1 Darmstadt, Germany
	Autore di 339 pubblicazioni scientifiche, 222 indicizzate Scopus e 327 indicizzate Google Scholar
	Relatore di 27 PhD in Ingegneria Aerospaziale
	Relatore di 163 Tesi Magistrali in Ingegneria Aerospaziale/Spaziale, 40 tesi di laurea, Ingegneria Aerospaziale/Spaziale
	Revisore per le seguenti riviste scientifiche: Celestial Mechanics, Acta Astronautica, Journal of Field Robotics, Advance in Space Research, Journal of Guidance Dynamics and Control, Journal of Space Science and Technology
	Membro di numerose commissioni finali di dottorato, sia nazionali che internazionali.
	Membro e Presidente di numerose commissioni di concorso nazionali per posizioni di ruolo da Ricercatore, Professore di II fascia, Professore di I fascia per differenti accademie, centri di ricerca.
	Membro di commissioni di concorso per posizioni di ruolo presso l'Agenzia Spaziale Italiana

RICERCA E FINANZIAMENTI

Michèle Lavagna è stata ed è Principal Investigator e Project Manager di più di cinquanta Progetti di ricerca, vinti in regime competitivo, per un finanziamento totale per il suo gruppo di lavoro di circa 5.1 M€.

Ha esperienza pluriennale nel coordinamento, gestione e sviluppo di progetti sia di ricerca che industriali, sia in ambito Nazionale che internazionale, sempre nel campo dell'ingegneria per lo Spazio.

La ricerca di Michèle Lavagna si concentra primariamente sulla dinamica e controllo del volo spaziale e sull'ingegneria dei sistemi spaziali.

In particolare, si evidenziano i settori dell'In Situ Resource Utilisation, sviluppo di nanosatellite ad elevate prestazioni, dalla fase concettuale fino al volo (fasi A-E), tecniche di guida navigazione e controllo per il volo di prossimità, il landing di precisione, l'Active Debris Removal and Mitigation nel contesto dell'On Orbit Servicing, le tecniche di Intelligenza Artificiale per l'aumento di autonomia a bordo e l'efficientamento dei processi progettuali/produttivi mediante concurrent engineering e model based system engineering, i sistemi distribuiti (costellazioni/formazioni) in regimi dinamici non kepleriani.

Di seguito si riporta lista delle collaborazioni in cui Michèle Lavagna è o è stata coinvolta.

ANNO	CONTRATTO	RUOLO
2021		
	Research contract - Lunar Communications and Navigation Service (LCNS) Phase A/B1 Study – ESA financed in consortium with Telespazio SpA in charge of the whole orbital architecture for the NAV-COMMS constellation definition	<i>Project Manager (for PoliMi)</i>
	Research contract - Cis-Lunar Transfer Vehicle (CLTV) - Phase A/B1 – ESA financed, in consortium with TAS-I, under collaboration with TAS-F for mission analysis and rendez-vous GNC in LOP-G NRHO trajectory	<i>Project Manager (for PoliMi)</i>
	Research contract - Small Satellite Missions to Mars an Architectural Study – ESA financed to assess the design of a Martian constellation as NAV and COMMS infrastructure – in consortium with TAS-I	<i>Project Manager (for PoliMi)</i>
2020		
	Research Contract e.INSPECTOR Phase A – ESA contract – to settle the mission feasibility and its requirements at subsystem level for a smallsat to fly within 2024 in proximity of a space debris object to reconstruct its shape and dynamics	<i>Project Manager (Prime)</i>
	Research contract - MUSICA Multiband Ultrawide Spectro-Imager for Cryosphere Analysis, ASI financed, in consortium under INAF-OAB, in charge of the mission design and feasibility assessment on smallsat.	<i>Project Manager (for PoliMi)</i>
	Research contract AIVIONICS – to assess the AI techniques effectiveness for optical navigation during proximity maneuvering – ESA Contract	<i>Project Manager (for PoliMi)</i>
2019		
–	Research Contract – LICIACube -to develop the mission analysis and guidance for a Cubesat to Didymos asteroid system to support the NASA DART mission	<i>Project Manager (for PoliMi)</i>
–	Innovative Training Network ASCENSION – responsible for 2 ESRs on reusable launchers' GNC and multi-payload delivery trajectory optimisation – MSCA H2020 Framework - European Commission funding	<i>Project Manager (for PoliMi)</i>

–	Research contract GLASS – Guide di Luce per Applicazioni multifunzionali per Sistemi Spaziali, financed by Agenzia Spaziale Italiana, glass fibers exploitation on highly flexible space components to properly reconstruct their shape – to be tested on parabolic flight	<i>Project Manager (Prime)</i>
–	Centralized Autonomous Relative Navigation of Multiple Spacecraft around Small Bodies – ESA Contract	<i>Project Manager (Prime)</i>
2018		
–	Research contract HERMES-Technological Pathfinder – to design and develop up to launch 3 3U nanosatellites to fly in fleet for GRBs detection – under Ministry of Education and Research, co-financed by ASI- in consortium with INAF	<i>Project Manager (Prime)</i>
–	Research contract HERMES – Scientific Pathfinder – to increase the HERMES TP cluster with 3 3U nanosatellites more to perform rapid GRBs localisation – H2020 EC contract, in consortium with INAF	<i>Project Manager (for PoliMi)</i>
–	COMMERCIAL IN-SITU RESOURCE UTILISATION Demonstration Mission Preparation Phase – ESA Study, in consortium with OHB-I, OHB System, Munster University, to perform phase A\B1 design for an E2E payload for ISRU for water extraction on the Moon through commercial landers	<i>Project Manager (for PoliMi)</i>
–	LUNAR ISRU DEMONSTRATION MISSION DEFINITION STUDY ESA Study on ISRU demonstrator P\L design based on carbothermal reduction – in consortium with OHB.I and OHB-System	<i>Project Manager (for PoliMi)</i>
–	MSCA-2020 IF – Supervisor for the GRAINS -Gravitation of Rubble-pile Asteroid with Internal N-body Structure - project European Commission funding	<i>Project Manager (Prime)</i>
–	Research contract – Attività di ricerca e innovazione – ASI financed to support the Agency on research and technological foresight in the Space systems domain	<i>WP Manager (for PoliMi)</i>
2016		
–	Research contract on scientific payloads, CHRISTMAS - Cryosphere High spatial Resolution Images and Snow/ice properties via apparent Thermal inertia obtained from Multispectral Advanced optical Systems, ASI contract under UniMi	<i>Project Manager (for PoliMi)</i>
–	Research contract on technology development, PROTEO, ASI contract under INAF	<i>Project Manager (for PoliMi)</i>
–	Research Contract PLATINO (mini Piattaforma spaziale ad Alta Tecnologia) fase A, ASI contract, under OHB-CGS	<i>Project Manager (for PoliMi)</i>
–	H2020 Research contract S3Net on March 2015 Compet 3 call, in consortium with Berlin University	<i>Project Manager (for PoliMi)</i>
–	Consultancy contract e.Deorbit, ESA contract, under TAS-I	<i>Project Manager</i>
2015		
–	Research Contract VINAG, VISION/INS INTEGRATED NAVIGATION ASSISTED BY GNSS, VINAG -TSD-PP-01, Agenzia Spaziale Italiana contract in consortium with Techno System Development srl	<i>Project Manager (for PoliMi)</i>
–	Research contract AIM phase A\B1, ESA contract ITT reference AO/1-8152/14/NL/MV, in consortium with OHB GmbH	<i>Project Manager (for PoliMi)</i>

	– Research contract GLXP Landing Technology, ESA contract ITT reference RFP/IPL-PTS/FK/2014.889, in consortium with TAS-I SpA, TSD srl	<i>Project Manager (Prime)</i>
	– Research Contract Lunar Drill Design, under ESA contract, in consortium with Selex-ES SpA	<i>Project Manager (for PoliMi)</i>
	– Consultancy contract e.DeOrbit -CNN, ESA contract, under TAS-F.	<i>Project Manager</i>
2014		
	– Research contract e.DeOrbit, ESA contract ITT reference AO/1-7632/13/NL/MV, in consortium with Kayser-Threde GmbH	<i>Project Manager (for PoliMi)</i>
	– Research contract Contract COBRA extension of the “IRIDES” experiment under ESA contract, in consortium with GMV, Spain	<i>Project Manager (for PoliMi)</i>
	– Research contract, Multiple-Body Dynamics Simulation tool (For Active Satellite Removal System Modelling)-continuation, Under ESA contract	<i>Project Manager (Prime)</i>
2013		
	– Research contract PATENDER Net Parametric Characterisation and Parabolic TesT, under ESA contract, ITT Reference AO 1-7452/13/NL/RA in consortium with GMV, Spain	<i>Project Manager (for PoliMi)</i>
	– Consultancy contract Sample Canister Capture Mechanism Design And Breadboard, for the Mars Sample Return Mission, under OHB-CGS SpA contract	<i>Project Manager (for PoliMi)</i>
	– Consultancy contract Space Radiations Superconducting Shield – SR2S under OHB-CGS Spa contract	<i>Project Manager (for PoliMi)</i>
	– Research contract AMALIA Fase B1: Missione di Landing & Mobility sulla Luna, under Agenzia Spaziale Italiana contract	<i>Project Manager (Prime)</i>
	– Research contract, Multiple-Body Dynamics Simulation tool (For Active Satellite Removal System Modelling), Under European Space Agency contract	<i>Project Manager (Prime)</i>
	– Consultancy contract, Active Debris Removal By Adaptation Of The Vega Upper-Stage in consortium with ELV SpA, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Consultancy contract, Active Debris Removal Service, in consortium with Kaiser-Threde GmbH, OHB GmbH, OHB-Sweden, under European Space Agency contract	<i>Project Manager</i>
2012		
	– Research contract, SysNova R&D Studies Competition for Innovation 12/X03 Binary asteroid orbit modification (BEAST), in consortium with GMV Spain and Thales Alenia Space-I, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Research contract, WIRELESS PASSIVE SENSORS, in consortium with Thales Alenia Space-I, and Selex-ES SpA, under European Space Agency Innovation Technology Initiative (ITI) contract	<i>Project Manager (for PoliMi)</i>

	– Research contract, R&D Studies Competition for Innovation 12/X03 Agency Contactless Earth-bound orbit modification (COBRA), in consortium with GMV Spain and Thales Alenia Space-I, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Research contract, CO-II Architecture-The Neo Segment, in consortium with Telespazio S.p.A. – Astrium GmbH, under European Space Agency contract	<i>Project Manager</i>
2011		
	– Research contract, Flight Control Team Multi-Agent System, in consortium with VEGA Space GmbH, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Consultancy contract Lunar Google Xprize Missione Amalia Missione Di Landing & Mobility Sulla Luna, under Agenzia Spaziale Italiana contract	<i>Project Manager (Prime)</i>
2010		
	– Research contract In-Situ Resources Utilisation (ISRU) Architecture And Technology Study, in consortium with OHB-CGS SpA, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
2009		
	– Research contract PRESTIGE EDUCATION PROGRAM, in consortium with Bremen University under European Space Agency Contract	<i>Project Manager (Prime)</i>
	– PRIN-COFIN national project: Education, University and Research Ministry (MIUR) contract	<i>Project Manager (for PoliMi)</i>
2008		
	– Research contract: Analisi Multidisciplinare per Identificazione di Microseepage: in collaboration with Chemical, Mathematics, Energy Dept. of Politecnico di Milano, under ENI SpA contract	<i>Project Manager</i>
	– Consultancy contract TOMORROW BIRD, in consortium with Carlo Gavazzi Space S.p.A under European Space Agency contract	<i>Project Manager</i>
2007		
	– Research contract Distributed Agents For Autonomy, in consortium with SciSys Ltd, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Research contract Autonomous Planning\Scheduling INITIATIVE in consortium with VEGA GmbH, under European Space Agency contract	<i>Project Manager (for PoliMi)</i>
	– Research contract SURFACE ARCHITECTURES, in consortium with OHB-CGS SpA under European Space Agency contract	<i>Project Manager</i>
	– Study PRIN-COFIN: validazione sperimentale di algoritmi per l'ottimizzazione robusta per la realizzazione, guida e controllo di formazioni di veicoli per lo spazio ad alta autonomia, under Ministry	<i>Project Manager</i>

	of Education, University and Research (MIUR) national contract	
	– Research contract CEF-CONCURRENT ENGINEERING FACILITY: under Thales Alenia Space S.p.A. Italia and Agenzia Spaziale Italiana Contract	<i>Project Manager</i>
2006		
	Research contract GLOBAL TRAJECTORY OPTIMISATION: Can We Prune the Solution Space when Considering Deep Space Manoeuvres? Under European Space Agency -Ariadna contract	<i>Technical Engineer</i>
2005		
	– Research contract SATELLITE PER MISSIONE OTTICA-MIOSAT, in consortium with Rehinmetall SpA under Agenzia Spaziale Italiana Contract	<i>Project Manager</i>
	– Consultancy contract NUCLEAR MULTI-MODULE ISRU Mission – Lunar Exploration Architecture, under Alcatel Alenia Space-Italia	<i>Project Manager</i>
	– Consultancy contract MULTIMISSION AUTOMATIC SCHEDULER in consortium with Telespazio SpA, under European Space Agency contract	<i>Technical Engineer</i>
2004		
	Study PRIN-COFIN: Ottimizzazione globale multiobiettivo per la selezione di componenti di sistema in fase preliminare di progetto per applicazioni spaziali under Ministry of Education, University and Research (MIUR) national contract	<i>Project Manager (for PoliMi)</i>
2003		
	– Consultancy contract under European Space Agency, Concurrent Design Facility	<i>Project Manager (for PoliMi)</i>
2002		
	– Research contract SMART-FDIR, in consortium with Alenia Spazio-I under ESA contract	<i>Technical Engineer</i>
2001		
	– Intelligent Dynamic (Re-) Scheduler for PROBA, under ESA contract	<i>Technical Engineer</i>

ATTIVITA' DIDATTICA

Michèle Lavagna ha parecchi anni di esperienza di insegnamento universitario nell'ambito della Meccanica Orbitale e della Progettazione di Sistemi Spaziali.

ANNO	RESPONSABILITA'
2021- in corso	Cattedra del Corso di Applied Space Mission Analysis and Design, Laurea Specialistica in Space Engineering, Politecnico di Milano
2021-in corso	Cattedra del Corso di Space System Engineering & Operations, Laurea Specialistica in Space Engineering, Politecnico di Milano
2019	Responsabile del Concurrent Engineering Challenge, third Edition – al Politecnico di Milano, selezionato da ESA Academy per svolgere una 5 giorni di studio di fattibilità in ambiente di Concurrent Engineering in coordinamento con altre 2 Università europee
2019	Relatore di 2 ESRs per il progetto EC-ITN – H2020 ASCENSION; responsabile per il secondment di 2 ESRs nella stessa rete di PhD europei
2019	Tutor italiano nominato ASI per la post-Alpbach at ESA Academy
2019	Tutor italiano nominato ASI per la Alpbach school
2018	Tutor italiano nominato ASI per la post-Alpbach at ESA Academy
2018	Tutor italiano nominato ASI per la Alpbach school come esperto di sistemi di campionamento planetario
2015-2016	Supervisore e responsabile dell'esperimento di volo Parabolico SatLeash, selezionato per all'interno del programma Fly Your Thesis! ESA program, 2015 edition. L'esperimento è stato progettato realizzato e gestito in volo da un team di 5 studenti, dottorandi e laureandi.
2012-2014	Tutor principale per il progetto di Alta Scuola Politecnica (www.asp.it) D-Verse: The space Park project, per realizzare un centro museale di divulgazione delle attività spaziali, da installarsi presso villa Confalonieri di Merate, LC-Italia
2012-2015	Co-advisor per la tesi di dottorato <i>Coupled Orbit-Attitude Mission Design in the Circular Restricted 3-Body Problem</i> in sviluppo presso Purdue University, West Lafayette, Indiana, US
2011- 2013	Tutor per il progetto dell'Alta Scuola Politecnica "NECV: Deep Space Missions: NEA Exploration Crew Vehicle" project, finalizzato allo studio di missione umana ad asteroidi
2010- in corso	Docente per seminario al corso di laurea specialistica Multi-Agents System, presso il Politecnico di Milano, Dipartimento di Elettronica Informatica e Bioingegneria
2009 –2016	Cattedra del Corso di Orbital Mechanics, Corso di laurea specialistica in Space Engineering, Politecnico di Milano
2008-2010	Tutor principale per il progetto di Alta Scuola Politecnica "Space Hotel Design-SHD" study, studio di fattibilità per mercato privato turistico spaziale.
2007	Docente per seminario di astrodinamica presso Massachusetts Institute of Technology (MIT), laboratorio di robotica, student del Mechanical Engineering Dept.

2007	Docente per seminario introduttivo all'astrodinamica presso Alenia Alcatel, Torino, Italia
2005- in corso	Cattedra del Corso di Space Mission Design course, Space Engineering, Laurea Magistrale in Space Engineering, Politecnico di Milano; (<i>link a pie pagina¹</i>)
2002-2010	Cattedra del corso di Meccanica del Volo Spaziale Laurea in Ingegneria aerospaziale, Politecnico di Milano
2001-2002	Docente a contratto per il corso di Space Mission Design, Laurea specialistica in Ingegneria Aerospaziale, Politecnico di Milano
1998-2008	Docente per il corso di Meccanica Orbitale Laurea specialistica in Ingegneria Aerospaziale, Politecnico di Milano
1998- in corso	Relatore di 30 ricerche di dottorato nel campo dell'astrodinamica e dell'ingegneria spaziale; relatore di advisor and co\advisor of 163 tesi di laurea specialistica in Aerospace and Space Engineering; relatore di 40 tesi di laurea in ingegneria aerospaziale Controrelatore di 16 tesi di dottorato nel settore dell'ingegneria spaziale per enti nazionali e internazionali.

¹ https://www4.ceda.polimi.it/manifesti/manifesti/controller/ricerche/RicercaPerDocentiPublic.do?evn_prodotto=EVENTO&k_doc=89259&aa=2019&lang=IT

PUBBLICAZIONI

Di seguito si riporta la produzione scientifica di Michèle Lavagna, raggruppata per categoria di classificazione. Alla data corrente, Michèle Lavagna ha prodotto 58 articoli pubblicati su riviste indicizzate, 55 classificati ISI/Scopus; 1 contributo a libro 289 lavori in atti di conferenze, 174 classificati ISI/Scopus.

La produzione scientifica riguarda la dinamica e controllo dei veicoli spaziali, la progettazione dei sistemi spaziali robotici.

Secondo Scopus M. Lavagna ha 1056 citazioni su 222 documenti, con h-index 16.

Secondo classificazione Google-Scholar M. Lavagna ha 1452 citazioni su 345 documenti, con h-index 18.

Articoli su rivista (ISI/Scopus)

1. A.E.Finzi, M.Lavagna , Dynamics and Control of 1g Rotating Two-Body Tethered Station, Journal of the Chinese Society of Mechanical Engineers, vol.21-no.1, pgg. 57-65, February 2000
2. M.Lavagna,A.E.Finzi, Equilibrium Analysis of a Large Multi-Hinged Space System, Acta Astronautica vol.53,no.1, July 2003, pgg.9-20
3. M.Lavagna,A.E.Finzi, Large multi-hinged space systems: a parametric stability analysis”, Acta Astronautica, vol.54, no.4 , February 2004, pp. 295-305
4. A.E.Finzi, M.Lavagna, G.Rocchitelli, DeeDri A drill-soil system modelization for future Mars exploration, Planetary and Space Science - Exploring Mars Surface and its Earth Analogues-, Elsevier, vol.52, issue 1-3, January-March 2004, pp.83-89
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