

MARCO FAENZI CURRICULUM VITAE



PERSONAL INFORMATIONS

Surname and Name

FAENZI, MARCO

E-mail addresses

faenzi@diism.unisi.it; marco.faezi@unisi.it

EDUCATION AND TRAINING

- Date June 2018 – Present day
 - Activity Reviewer for the IEEE Journal “Transactions on Antennas and Propagation”

- Date October 2019
 - Activity Service as Reviewer for EuCAP 2020 European conference on Antennas and Propagation

- Date April, 1st 2020 – Present Day
- Name and type of education Recipient of an annual Post-Doctoral Research Activity grant at the Department of Information Engineering and Mathematics, University of Siena, Italy within the framework of PRIN 2017 (Progetti di ricerca di Rilevante Interesse Nazionale), titled “**Antenna Modulare a Metasuperfici a Fascio Sagomato per Applicazioni Spaziali**”

- Date September, 1st 2018 – March 31st 2020
- Name and type of education Recipient of a Post-Doctoral Research Activity grant at the Centre Nationale de la Recherche Scientifique (CNRS), Université de Rennes 1, Rennes (France). The grant was issued by Région Bretagne under the Stratégie d’Attractivité Durable (SAD) volet 2 programme, contract no. SAD17012, and by the European Union through the European Regional Development Fund, in part by the French Region of Brittany, Ministry of Higher Education and Research, Rennes Métropole and Conseil Départemental 35 through the CPER Project STIC & Ondes.
The project titled “**Mathew**” has been focused on design and fabrication of broadband and multi-frequency flat, light apertures realized by metasurface technology for satellite communications applications at K and Ka-band. Optimization algorithms, based on accurate metasurface dispersion characterization were implemented and tested to obtain maximally flat frequency responses from apertures operating in frequency ranges comprised between [21.5;29.5]GHz and [24;28.5]GHz. Candidate layouts were implemented and tested by using a Fast-Multipole analysis and an IBC-MoM approach showing the possibility of obtaining a +/-1dB oscillation around average gains respectively of 26dBi and 29dBi for apertures having a 11.11cm radius. Developed design method has proven to be also effective for obtaining dual frequency apertures featuring gain of around 31dBi and 33dBi (for an aperture of radius 12cm) at frequencies of 26.25GHz and 32.05GHz

- Date September, 15th 2017 – August, 31st 2018
- Name and type of education Recipient of an annual Post-Doctoral Research Activity grant titled “**Metasurfaces Synthesis and Design in Nanoarchitectronics Framework**” at the Dept. of Information Engineering and Mathematics of the University of Siena, Siena (IT). Project within the European

Nanoarchitectronics Project Framework under the supervision of the Scientific Coordinator Prof. Stefano Maci

- Date
 - Name and type of education
 - Name and type of education
 - Principal subjects/occupational skills covered
 - Date
 - Name and type of education
 - Principal subjects/occupational skills covered
 - Date
 - Principal subjects/occupational skills covered
 - Name and type of organization providing education and training
 - Date
 - Principal subjects/occupational skills covered
 - Name and type of organization providing education and training
- December, 11th 2017
Co-Advisor of a Bachelor Degree Thesis titled "**Design di Antenna a Metasuperficie Modulata Realizzata Tramite Pin Metallici**". Candidate: Simone Bartoccini, Advisor: Prof. Stefano Maci
- September, 15th 2015 – September, 14th 2017
Recipient of a Post-Doctoral Research Activity grant within the framework of Networking/Partnering Initiative promoted and co-sponsored by the European Space Agency. The activity is entitled "**Multiple and Wideband Metasurface Antenna Structures for TLC Applications: Taming the Complexity and Fully Exploiting the Potential of Metasurface Antennas by Appropriate Design Methods**".
The research activity has been focused on drawing completely new design techniques, the following testing and refinement of the latter, in order to synthesize ultra-flat Modulated Metasurface antennas, by simple printed technology, capable of multi-frequency operability. In particular the outcome of the work resulted in proposing design techniques for broadband apertures (with broadside pencil beam pointing capabilities) showing a very stable pattern and good XPD on a wide spectrum at Ka-band i.e. up to a bandwidth of 22% with current technology (possibly up to around 45-50% by customized elements) and aperture efficiency around 20%. Feasibility of dual-band apertures was demonstrated also (with broadside pencil beam) for TM/TC applications in space missions at X-band, realized aperture efficiency is up to 45% at the most critical band also displaying good polarization purity and sidelobe levels.
- January 1st 2012 - April 28th 2015
PhD Graduate in Information Engineering and Science, Department of Information Engineering and Mathematics, University of Siena, Italy
- Research activity on metamaterial structures for the cavity backing of ultra-broadband radiators and dipole coupling interactions in presence of high impedance non-spatially dispersive planes. Integral Equations full-wave analysis tools for the analysis and synthesis of axially and non-axially symmetric leaky-wave holographic high-gain low-profile antennas realized through modulated metasurfaces. Polarization control addressing through anisotropic pattern design and gain enhancement by tapered impedance patterning. The latter activities have been performed in the framework of an ESA financed research project in cooperation and partnership with IDS Ingegneria Dei Sistemi, Pisa.
- June 23rd-25th 2014
PhD Course: "**Fields And Waves in Metamaterials and Metasurfaces**", Prof. Nader Engheta, UPENN State University, USA.
PhD School in Information Engineering and Science, Dept. of Information Engineering and Mathematical Science, University of Siena, Italy.
- April 14th-17th 2014
ESoA Course: "**Leaky Waves And Periodic Structures For Antenna Applications**", - Course Coordinator Prof. F. Frezza
Dept. of Electronical Engineering, University La Sapienza, Roma, Italy / European School of Antennas

- Date December, 16th 2013
 - Name and Type of Education Co-Advisor of a Bachelor Degree Thesis titled “**Alimentatori in Polarizzazione Circolare per Antenne Ultrasottili**”. Candidate: Tommaso Renaioli, Advisor: Prof. Stefano Maci

- Date September 16th – 20th 2013
 - Principal subjects/occupational skills covered ESoA Course: “**Frequency Domain Techniques For Antenna Analysis**”, Course Coordinator Prof. A. Freni
 - Name and type of organization providing education and training Dept. Of Information Engineering, Università degli Studi di Firenze, Firenze, Italy / European School of Antennas

- Date July 15th – 19th 2013
 - Principal subjects/occupational skills covered ESoA Course: “**Antenna Imaging Technologies**”, - Course Coordinator Prof. A. Neto
 - Name and type of organization providing education and training TU Delft, Delft, The Netherlands / European School of Antennas

- Date May 27th – 31st 2013
 - Principal subjects/occupational skills covered PhD course: “**Metamaterials and Metasurfaces**”, - Prof. S.Maci, Prof. M.Albani
 - Name and type of organization providing education and training PhD School in Information Engineering and Science, Dept. of Information Engineering and Mathematical Science, University of Siena, Siena Italy

- Date October 22nd - 25th 2012
 - Principal subjects/occupational skills covered ESoA Course: “**Transformation electromagnetics for antenna design**”, - Course Coordinator Prof. Yang Hao
 - Name and type of organization providing education and training QMUL Queen Mary University of London, London, United Kingdom / European School of Antennas

- Date June 11th – 22nd 2012
 - Principal subjects/occupational skills covered PhD course: “**Advanced Green’s function methods**”, Prof. Prabhakar H. Pathak, Ohio State University, Columbus, Ohio USA
 - Name and type of organization providing education and training PhD School in Information Engineering and Science, Dept. of Information Engineering and Mathematical Science, University of Siena, Siena Italy

- Date May 13th – 20th 2012
 - Principal subjects/occupational skills covered ESoA Course: “**Advanced mathematics for Antenna Analysis**”, Course coordinator Prof. Z. Sipus
 - Name and type of organization

providing education and training

- Date
- Name and type of education
- Specialization
- Achieved Degree

Dept. of Wireless Communications, University of Zagreb, Zagreb, HR / European School of Antennas

Starting academic year 2005/2006. Ending academic year 2010/2011
Master Degree (MS)

Telecommunications Systems (ST)
Degree got on December 12th 2011 with a score of 110/110 in Telecommunications Engineering.
Title of the thesis: “**Strutture Metamateriali per Antenne Sinuous a Larghissima Banda**”.
Advisor: Prof. Stefano Maci; Co-Advisor: Dr. Enrica Martini

- Date
- Name and type of education
- Specialization
- Achieved Degree

Starting academic year 2000/2001. Ending academic year 2004/2005

Bachelor Degree (BD)
Telecommunication Systems (ST)
Degree got on October 3rd 2005 with a score of 99/110 in Telecommunications Engineering.
Title of the thesis: “**Studio Parametrico di un’Antenna ad Onda Leaky Realizzata Tramite Superfici Periodiche Stampate**”.
Advisor: Prof. Stefano Maci; Co-advisor: Dr. Mauro Ettore

- Date
- Name and type of education
- Achieved Degree

October 2002 – September 2004
Certification of Professional Qualification (Regione Toscana)
Expert technician in wireless communications systems management and design.
IV.a European Qualification Degree.

- Date
- Name and type of education
- Achieved Degree

Starting scholastic year 1995/1996. Ending scholastic year 1999/2000
Superior secondary School, Liceo Scientifico Statale Leonardo da Vinci, Acquapendente (VT), Italy.
High School Diploma “Maturità Scientifica” achieved with a score of 88/100 in July 2000.

PERSONAL SKILLS AND COMPETENCES

MOTHER LANGUAGE

ITALIAN

OTHER LANGUAGES

- Reading capacity
- Writing capacity
- Oral expression capacity

ENGLISH
EXCELLENT
VERY GOOD
GOOD

Reading capacity
Writing capacity
Oral expression capacity

FRENCH
ELEMENTARY
ELEMENTARY
ELEMENTARY

CERTIFICATIONS

CAMBRIDGE PRELIMINARY ENGLISH TEST – MARCH 2001

RELATIONAL CAPABILITIES

GOOD RELATIONAL CAPABILITIES AT WORKPLACE, INCLINATION TO WORK IN GROUP AND TO TEAM COOPERATION

COMPUTER SKILL AND
TECHNICAL COMPETENCES

MATLAB PROGRAMMING
FUNDAMENTALS IN JAVA PROGRAMMING AND C PROGRAMMING
GOOD KNOWLEDGE OF WINDOWS E OPERATIVE SYSTEM AND MS OFFICE SOFTWARE PACKAGE
FUNDAMENTALS OF GNU/LINUX OPERATIVE SYSTEM ENVIRONMENT
FUNDAMENTALS OF DATABASE HANDLING (VIA SQL)

KNOWLEDGE OF TECHNICAL
PRODUCTS AND SOFTWARE

KNOWLEDGE OF ELECTROMAGNETIC CAD "CST STUDIO SUITE 2018"
KNOWLEDGE OF ELECTROMAGNETIC CAD "CADFEKO 6.1"
KNOWLEDGE OF ELECTROMAGNETIC CAD "ANSOFT ANSYS HFSS 19"
KNOWLEDGE OF ELECTROMAGNETIC CAD "ANSOFT DESIGNER 8.0"

INTERNATIONAL CONFERENCES CONTRIBUTIONS

- [1] M.FAENZI, G.MINATTI, G.M.SARDI, E.MARTINI, S.MACI, - "ON THE VALIDITY OF NON-SPACE DISPERSIVE IMPEDANCE BOUNDARY CONDITION FOR REPRESENTING HIGH-IMPEDANCE METASURFACES" APS/URSI INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION, CHICAGO, ILLINOIS, USA JULY 9TH - 13TH 2012
- [2] F.CAMINITA, M.FAENZI, D. GONZALEZ-OVEJERO, S.MACI, - "NUMERICAL ISSUES IN THE ANALYSIS OF LARGE BOR ANTENNAS INVOLVING DIELECTRIC AND METALLIC PARTS", 7TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP 2013), GOTHENBURG, SWEDEN, APRIL 8TH-12TH 2013
- [3] M.FAENZI, F.CAMINITA, D.GONZALEZ-OVEJERO, S.MACI, - "EFFICIENT EVALUATION OF MoM REACTION INTEGRALS FOR ANALYSIS OF ELECTRICALLY LARGE BODIES OF REVOLUTION" APS/URSI INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION, ORLANDO, FLORIDA, USA JULY 7TH-13TH 2013
- [4] M.FAENZI, E.MARTINI, D.GONZALEZ-OVEJERO, G.MINATTI, P.DE VITA, M.SABBADINI, S.MACI, - "METASURFACE LEAKY-WAVE ANTENNAS: A COMPARISON BETWEEN SLOT AND PATCH IMPLEMENTATION", 8TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP 2014), THE HAGUE, THE NETHERLANDS, APRIL 6TH-11TH 2014
- [5] D. GONZALEZ-OVEJERO, M. VIOLETTI, M.FAENZI, M.SABBADINI, S.MACI, - "SPECTRAL/SPATIAL GLOBAL DOMAIN BASIS FUNCTIONS FOR THE DESCRIPTION OF METASURFACES", 8TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP 2014), THE HAGUE, THE NETHERLANDS, APRIL 6TH-11TH 2014
- [6] M.FAENZI, E.MARTINI, D.GONZALEZ-OVEJERO, G.MINATTI, P.DE VITA, M.SABBADINI, S.MACI - "COMPLEMENTARY METASURFACES APPLIED TO THE DESIGN OF LEAKY WAVE ANTENNAS", APS/URSI INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION, MEMPHIS, TENNESSEE, USA JULY 6TH - 11TH 2014
- [7] M. FAENZI, F. CAMINITA, E. MARTINI, D. GONZALEZ-OVEJERO, S. MACI, - "LOW-MASS LOW PROFILE METASURFACE ANTENNAS BASED ON ANISOTROPIC SURFACE IMPEDANCE", 31ST URSI GENERAL ASSEMBLY AND SCIENTIFIC SYMPOSIUM, BEIJING, CHINA, AUGUST 16TH-23RD 2014
- [8] M. JR MENCAGLI, E. MARTINI, F. CAMINITA, M. FAENZI, S. MACI, "FAST APPROACH TO THE DESIGN OF PLANAR DEVICES AND ANTENNAS BASED ON ELLIPTICAL PATCH METASURFACES", 8TH INTERNATIONAL CONGRESS ON ADVANCED ELECTROMAGNETIC MATERIALS IN MICROWAVES AND OPTICS - METAMATERIALS 2014 COPENHAGEN, DENMARK
- [9] M. MENCAGLI, M. FAENZI, E. MARTINI, & S. MACI (2014, JULY). "EFFICIENT DESIGN OF ELECTROMAGNETIC DEVICES USING MODULATED ELLIPTICAL PATCH METASURFACES". IN RADIO SCIENCE MEETING (JOINT WITH AP-S SYMPOSIUM), 2014 USNC-URSI (PP. 96-96). IEEE.
- [10] A. TELLECHEA-PEREDA, E. MARTINI, D. GONZALEZ-OVEJERO, M. FAENZI, G. MINATTI AND S. MACI, "DUAL BAND ISOFLUX ULTRAFLAT META ANTENNAS," 2015 9TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LISBON, 2015, PP. 1-5.
- [11] M. FAENZI, M. J. MENCAGLI, E. MARTINI, D. GONZÁLEZ-OVEJERO AND S. MACI "DESIGN OF MODULATED METASURFACE ANTENNAS BASED ON ELLIPTICAL PATCHES", PAPER PRESENTED IN POSTERS SESSION AT 9TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LISBON, 2015.
- [12] M. FAENZI, F. CAMINITA AND E. MARTINI, P. DE VITA, M. SABBADINI, S. MACI, "CIRCULARLY POLARIZED ULTRA-THIN ANTENNAS FOR SPACE: EXAMPLES OF REALIZATIONS" 2015 9TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LISBON, 2015
- [13] M. FAENZI, F. CAMINITA, E. MARTINI, P. DE VITA, M. SABBADINI, S. MACI, "ULTRA-FLAT ANTENNAS FOR SPACE APPLICATIONS: DESIGN, REALIZATION AND MEASUREMENTS", IN RADIO SCIENCE MEETING (JOINT WITH AP-S SYMPOSIUM), 2015 USNC-URSI. IEEE.
- [14] G. MINATTI, M. FAENZI, F. CAMINITA, E. MARTINI, A. BENINI, M. SABBADINI, & S. MACI, (2016, APRIL). "CONTROLLING LEAKY WAVES BY MODULATED METASURFACES". IN ANTENNAS AND PROPAGATION (EUCAP), 2016 10TH EUROPEAN CONFERENCE ON (PP. 1-3). IEEE.
- [15] E. MARTINI, F. CAMINITA, M. FAENZI, G. MINATTI, & S. MACI, (2016, AUGUST). "NEW ANTENNAS FOR SPACE APPLICATIONS". IN *ELECTROMAGNETIC THEORY (EMTS)*, 2016 URSI INTERNATIONAL SYMPOSIUM ON (PP. 103-106). IEEE.

- [16] M. FAENZI, G. MINATTI, E. MARTINI, F. CAMINITA, M. SABBADINI, S. MACI, "ON EFFICIENCY AND BANDWIDTH OF METASURFACE ANTENNAS" IN ANTENNAS AND PROPAGATION (APS/URSI), 2016 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [17] D. GONZÁLEZ-OVEJERO, G. MINATTI, M. FAENZI, F. CAMINITA, E. MARTINI, AND S. MACI, "SHARED APERTURE MODULATED METASURFACE ANTENNAS", XXXII URSI GENERAL ASSEMBLY AND SCIENTIFIC SYMPOSIUM 2017, SESSION: METASURFACE ENGINEERING
- [18] G. MINATTI, M. FAENZI, E. MARTINI, M. SABBADINI AND S. MACI, "COMPACT EXPRESSIONS FOR EFFICIENCY AND BANDWIDTH OF MODULATED METASURFACE ANTENNAS" IN ANTENNAS AND PROPAGATION (APS/URSI), 2017 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [19] M. FAENZI, D. GONZÁLEZ-OVEJERO, G. MINATTI, E. MARTINI, F. CAMINITA, M. SABBADINI AND S. MACI, "DUAL-BAND MODULATED METASURFACE ANTENNAS", IN ANTENNAS AND PROPAGATION (APS/URSI), 2017 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [20] V. SOZIO, M. FAENZI, M. A. FRANCAVILLA, E. MARTINI, F. CAMINITA, M. SABBADINI, S. MACI, G. VECCHI, "ADIABATIC MODE FORMULATION FOR CONICAL METAHORN", IN ANTENNAS AND PROPAGATION (APS/URSI), 2017 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [21] V. SOZIO, M. FAENZI, M. A. FRANCAVILLA, E. MARTINI, F. CAMINITA, M. SABBADINI, S. MACI, G. VECCHI, "LOW CROSS POLARIZATION CONICAL METAHORN BASED ON AN ADIABATIC MODE FORMULATION" IN ANTENNAS AND PROPAGATION (EUCAP), 2017 11TH EUROPEAN CONFERENCE ON, SESSION METASURFACES FOR SPACE APPLICATIONS
- [22] M. FAENZI, D. GONZÁLEZ-OVEJERO, F. CAMINITA, S. MACI, "DUAL-BAND SELF-DIPLEXED MODULATED METASURFACE ANTENNAS" 2018 12TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LONDON, 2018.
- [23] M. FAENZI, G. MINATTI, E. MARTINI, M. SABBADINI, S. MACI, "PHYSICAL BOUNDS FOR METASURFACE ANTENNAS", 2018 12TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LONDON, 2018.
- [24] S. C. PAVONE, M. FAENZI, E. MARTINI, M. ALBANI AND S. MACI, "CLOSED FORM BASIS FUNCTION FOURIER SPECTRA FOR DISPERSION CALCULATION OF METASURFACES MADE BY CIRCULAR AND ELLIPTICAL RING PATCHES", 2018 12TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), LONDON, 2018.
- [25] M. FAENZI, E. MARTINI, F. CAMINITA AND S. MACI, "CANONICAL PROBLEMS FOR MULTIFREQUENCY MODULATED METASURFACES" IN ANTENNAS AND PROPAGATION (APS/URSI), 2018 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [26] F. CAMINITA, E. MARTINI, G. MINATTI, C. DELLA GIOVAMPAOLA, M. FAENZI, M. SABBADINI AND S. MACI, "REVIEW OF THE LAST IMPLEMENTATIONS OF HIGH-GAIN MODULATED METASURFACE ANTENNAS" IN ANTENNAS AND PROPAGATION (APS/URSI), 2018 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [27] M. FAENZI, G. MINATTI, E. MARTINI, M. SABBADINI AND S. MACI, "METAMODULATION FOR ULTRALARGE BANDWIDTH" IN ANTENNAS AND PROPAGATION (APS/URSI), 2018 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [28] S. C. PAVONE, M. FAENZI, E. MARTINI, M. ALBANI, AND S. MACI, "SPEEDING UP PARAMETER EXTRACTION OF CIRCULAR AND ELLIPTICAL RING PATCH METASURFACES BY MEANS OF CLOSED FORM FOURIER SPECTRA OF BASIS/TESTING FUNCTIONS" IN ANTENNAS AND PROPAGATION (APS/URSI), 2018 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [29] M. FAENZI, D. GONZÁLEZ-OVEJERO, AND S. MACI, "BROADBAND METASURFACE ANTENNAS", 2019 13TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), KRAKOW, 2019.
- [30] V. SOZIO, P. DE VITA, A. GIACOMINI, E. MARTINI, F. CAMINITA, M. FAENZI, M. SABBADINI, G. VECCHI, AND S. MACI "DESIGN, REALIZATION AND MEASUREMENTS OF A CONICAL METAHORN WITH SYMMETRIC RADIATION PATTERN AND LOW CROSS-POLARIZATION" IN ANTENNAS AND PROPAGATION (APS/URSI), 2019 IEEE INTERNATIONAL SYMPOSIUM ON. IEEE.
- [31] D. GONZALEZ-OVEJERO, J. RUIZ-GARCÍA, M. FAENZI, AND S. MACI, "EFFICIENT MODELING OF MODULATED METASURFACE ANTENNAS". IN *2019 INTERNATIONAL CONFERENCE ON ELECTROMAGNETICS IN ADVANCED APPLICATIONS (ICEAA)* (PP. 1018-1018). IEEE (2019, SEPTEMBER).
- [32] J. RUIZ-GARCÍA, D. GONZÁLEZ-OVEJERO, M. FAENZI, A. MAHMOUD, M. ETTORRE, P. POTIER, P. POULIGUEN, R. SAULEAU "QUASI-OPTICAL EXCITATION OF MODULATED METASURFACE ANTENNAS" *METAMATERIALS 2019, 13TH INTERNATIONAL CONGRESS ON ARTIFICIAL MATERIALS FOR NOVEL WAVE PHENOMENA, ROME SEPTEMBER 16TH-21ST, 2019*

PUBLICATIONS ON JOURNAL PAPERS

- [33] J. RUIZ-GARCÍA, M. FAENZI, A. MAHMOUD, M. ETTORRE, P. POTIER, P. POULIGUEN, R. SAULEAU, D. GONZÁLEZ-OVEJERO, "QUASI-OPTICAL EXCITATION OF A CIRCULARLY-POLARIZED METASURFACE ANTENNA AT K-BAND", 2020 14TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), COPENHAGEN, 2020.
- [34] M. FAENZI, D. GONZÁLEZ-OVEJERO, AND S. MACI, "A METHOD FOR EXTENDING THE BANDWIDTH OF MODULATED METASURFACE ANTENNAS", 2020 14TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), COPENHAGEN, 2020. - **BEST PAPER AWARD NOMINEE IN "ANTENNAS" ADVANCEMENTS**
- [35] M. FAENZI, G. MINATTI, D. GONZÁLEZ-OVEJERO, F. CAMINITA, E. MARTINI, C. DELLA GIOVAMPAOLA AND S. MACI "RECENT ADVANCES ON MODULATED METASURFACE ANTENNAS FOR SATCOM", 2020 14TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP), COPENHAGEN, 2020.
- [36] M. FAENZI, G. PETRAGLIA, R. VITIELLO, S. MACI, "A KA-BAND MONOPULSE ANTENNA BASED ON MODULATED METASURFACE TECHNOLOGY", EUCAP 2021, 15TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION, MARCH 22ND- 26TH 2021, DÜSSELDORF - **ACCEPTED FOR PRESENTATION**
- [37] M. BODEHOU, M. FAENZI, D. GONZALEZ-OVEJEROZ, S. MACI, C. CRAEYE, E. MARTINI, "METASURFACE ANTENNAS: EFFICIENCY VERSUS BANDWIDTH", EUCAP 2021, 15TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION, MARCH 22ND- 26TH 2021, DÜSSELDORF - **ACCEPTED FOR PRESENTATION**
- [38] M. FAENZI, D. GONZÁLEZ-OVEJERO, S. MACI, "MODULATED METASURFACE ANTENNAS WITH ENHANCED BROADBAND RESPONSE", EUCAP 2021, 15TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION, MARCH 22ND- 26TH 2021, DÜSSELDORF - **ACCEPTED FOR PRESENTATION**
- [39] C. YEPES, C. TONDI, M. FAENZI, E. MARTINI, S. MACI, "PERFECT NON SPECULAR REFLECTION WITH POLARIZATION INVERSION BY USING ANISOTROPIC METASURFACE SHEET ON A GROUNDED DIELECTRIC SLAB", EUCAP 2021, 15TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION, MARCH 22ND- 26TH 2021, DÜSSELDORF - **ACCEPTED FOR PRESENTATION**
- [40] G. MINATTI, M. FAENZI, E. MARTINI, F. CAMINITA, P. DE VITA, D. GONZÁLEZ-OVEJERO, M. SABBADINI and S. MACI (2015). "MODULATED METASURFACE ANTENNAS FOR SPACE: SYNTHESIS, ANALYSIS AND REALIZATIONS". *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*, 63(4), 1288-1300. - **RECIPIENT OF THE 2016 SERGEI A. SCHELKUNOFF TRANSACTIONS PRIZE PAPER AWARD**
- [41] G. MINATTI, M. FAENZI, M. SABBADINI & S. MACI (2017). "BANDWIDTH OF GAIN IN METASURFACE ANTENNAS". *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*, 2017, 65.6: 2836-2842
- [42] M. FAENZI, F. CAMINITA, E. MARTINI, P. DE VITA, G. MINATTI, M. SABBADINI, & S. MACI (2016). "REALIZATION AND MEASUREMENT OF BROADSIDE BEAM MODULATED METASURFACE ANTENNAS". *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS*, 15, 610-613.
- [43] M. FAENZI, G. MINATTI, S. MACI, "METASURFACE ANTENNAS: DESIGN AND PERFORMANCE", IEICE INVITED PAPER IN SECTION "RECENT PROGRESS IN ANTENNAS AND PROPAGATION IN CONJUNCTION WITH MAIN TOPICS OF ISAP 2017"
- [44] M. FAENZI, G. MINATTI, D. GONZALEZ-OVEJERO, F. CAMINITA, E. MARTINI, C. DELLA GIOVAMPAOLA, AND S. MACI. "METASURFACE ANTENNAS: NEW MODELS, APPLICATIONS AND REALIZATIONS". *SCIENTIFIC REPORTS*, 9(1), 1-14, 2019.
- [45] M. FAENZI, D. GONZALEZ-OVEJERO, AND S. MACI, "WIDEBAND ACTIVE REGION METASURFACE ANTENNAS". *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*, 68(3), 1261-1272, 2020.
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OTHER CAPACITIES AND COMPETENCES	[51] COAUTHOR OF A BOOK CHAPTER WITHIN THE BOOK TITLED: “APERTURE ANTENNAS FOR MILLIMETER AND SUB-MILLIMETER WAVE APPLICATIONS”, EDITORS: A. BORISKIN, R. SAULEAU, SPRINGER 2018.
OTHER INTERESTS AND HOBBIES	GOOD WRITING CAPABILITY IN DIFFERENT KIND OF TEXT OR COMPOSITIONS
DRIVING LICENSE	Volley, reading, biking.
	Driving license (A, B category)