

Alessio Monti

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Attuale posizione **Professore Associato** - Università degli Studi Roma Tre.
SSD: ING-INF/02 - Campi Elettromagnetici

EDUCAZIONE E FORMAZIONE

- *Novembre 2020*: Conseguita l'**abilitazione scientifica nazionale** per le funzioni di **professore di prima fascia** nel settore concorsuale 09/F1 – Campi Elettromagnetici.
- *Luglio 2017*: Conseguita l'**abilitazione scientifica nazionale** per le funzioni di **professore di seconda fascia** nel settore concorsuale 09/F1 – Campi Elettromagnetici.
- *Settembre 2011*: Conseguita l'**abilitazione alla professione di Ingegnere** nella classe Ingegneria dell'Informazione.
- *2010-2013*: **Dottorato di Ricerca** in Ingegneria dell'elettronica biomedica, dell'elettromagnetismo e delle telecomunicazioni (XXVI ciclo).
- *Ottobre 2010*: **Laurea Magistrale in Ingegneria delle Tecnologie della Comunicazione e dell'Informazione** con una tesi dal titolo "Progetto di rivestimenti basati sui metamateriali per la riduzione dell'effetto Casimir".
Voto finale: **110/110 cum laude**.
- *Ottobre 2008*: **Laurea in Ingegneria Elettronica** con una tesi dal titolo "Studio del comportamento elettromagnetico dei metamateriali MNZ".

ESPERIENZE PROFESSIONALI

- **Posizioni accademiche presso Università italiane**
 - *Da novembre 2021*: **Professore Associato** nel SSD ING-INF/02 - Campi Elettromagnetici presso l'Università degli Studi Roma Tre.
 - *Marzo 2021-ottobre 2021*: **Professore Associato** nel SSD ING-INF/02 - Campi Elettromagnetici presso l'Università degli Studi Niccolò Cusano.
 - *Giugno 2018-febbraio 2021*: **Ricercatore universitario di tipo B** nel SSD ING-INF/02 - Campi Elettromagnetici presso l'Università degli Studi Niccolò Cusano.
 - *Settembre 2013-giugno 2018*: **Ricercatore universitario di tipo A** nel SSD ING-INF/02 - Campi Elettromagnetici presso l'Università degli Studi Niccolò Cusano.

➤ **Posizioni accademiche presso Università estere**

- *Maggio 2018: Visiting researcher* presso l'Aalto University (Finland) nell'ambito del programma Erasmus+ per professional training.
- *Maggio 2017: Visiting researcher* presso l'Institute Fresnel di Marsiglia (Francia) nell'ambito del programma Erasmus+ per professional training.
- *Ottobre-novembre 2016: Visiting professor* presso il Department of Electrical and Computer Engineering della The University of Texas at Austin in Austin, TX, USA.

ATTIVITÀ DIDATTICA

➤ **Didattica internazionale in lingua inglese:**

- **Docente** presso il 5th IEEE International Workshop on Metrology for AeroSpace (20 giugno 2018). Titolo del tutorial: "Metamaterials for measurements".
- **Docente** del corso breve (4h) tenuto durante il 2016 IEEE International Symposium on Antennas and Propagation. Titolo del corso: "SC-H14: Metamaterial Cloaking in Antenna Systems".
- **Docente** presso la 27th Scuola Dottorale sui Metamateriali (Università degli Studi Roma Tre, Roma, Italia, 4-8 maggio 2015). Titolo della lezione: "Optical mantle cloaking".
- **Esercitatore** presso la 24th Scuola Dottorale sui Metamateriali (Università degli Studi Roma Tre, Roma, Italia, 24-27 marzo 2014). Titolo delle lezioni: "Design of resonant inclusions for MW Metamaterials" e "Scattering controlled by metasurfaces".

➤ **Incarichi di insegnamento per corsi universitari:**

- 2021/2022
 - **Titolare del corso** (compito didattico) di *Metamaterials* (9 CFU) per il corso di studi in Ingegneria delle tecnologie della comunicazione e dell'informazione (LM27) dell'Università degli Studi Roma Tre.
 - **Titolare del corso** (compito didattico) di *Tecnologie per il monitoraggio remoto offshore* (6 CFU) per il corso di studi in Ingegneria meccanica per le risorse marine (LM33) dell'Università degli Studi Roma Tre.
 - **Professore del corso** (compito didattico) di *Antenne per comunicazioni mobili* (1 CFU) per il corso di studi in Ingegneria Elettronica (L8) dell'Università degli Studi Roma Tre.

- 2020/2021
 - **Titolare del corso** (compito didattico) di *Propagazione guidata e circuiti a microonde* (9 CFU) per il corso di studi in Ingegneria Elettronica e Informatica (L8) dell'Università degli Studi Niccolò Cusano.
 - **Titolare del Corso** (ulteriore incarico di insegnamento) di *Antenne* (9 CFU) per il corso di studi in Ingegneria Elettronica (LM29) dell'Università degli Studi Niccolò Cusano.
 - **Titolare del Corso** (ulteriore incarico di insegnamento) di *Microonde* (6 CFU) per il corso di studi in Ingegneria Elettronica (LM29) dell'Università degli Studi Niccolò Cusano.
- 2018/2019 e 2019/2020
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Antenne* (9 CFU)
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Microonde* (6 CFU)
- 2017/2018
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Antenne* (9 CFU)
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Microonde* (9 CFU)
- 2016/2017
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Antenne* (9 CFU)
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Microonde* (9 CFU)
- 2015/2016
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Antenne* (9 CFU)
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Microonde* (9 CFU)

- 2013/2014 e 2014/2015
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Antenne* (9 CFU)
 - **Professore aggregato** presso l'Università degli Studi Niccolò Cusano per il corso di studi di Ingegneria Elettronica (LM29) per l'insegnamento di *Microonde* (9 CFU)

RESPONSABILITÀ DI PROGETTI DI RICERCA

➤ **Progetto di ricerca europei:**

1. EIC PathFinder 2022 "Plasma reconfigurable metasurface technologies (acronym: PULSE)" finanziato da EU (EIC PathFinder 2022 protocol number 101099313) - 2023-2026.
Ruolo: *principal investigator*.

➤ **Progetti di ricerca nazionali:**

2. PRIN 2022 "Metasurface-based technology towards industrial applications (acronym: MEETAPP)" finanziato dal MIUR - 2023-2025.
Ruolo: *responsabile di unità di ricerca*.
3. PRIN 2017 "Cloaking Metasurfaces for a new Generation of Intelligent Antenna Systems (acronym: MANTLES)" finanziato dal MIUR (PRIN 2017 contract number 2017BHFZKH) - 2019-2021.
Ruolo: *responsabile di unità di ricerca*.
4. "Applicazioni del GRP in ambito archeologico" (presentato congiuntamente con l'azienda GRS s.r.l.) finanziato dalla Provincia di Roma nell'ambito del bando "Promotori tecnologici per l'innovazione Terza Edizione" - 2012.
Ruolo: *principal investigator*.

ATTIVITÀ EDITORIALE

➤ **Associate editor per le seguenti riviste internazionali:**

1. IEEE Transaction on Antennas and Propagation (2018-)

➤ **Membro dell'Editorial Board di riviste scientifiche internazionali:**

1. EPJ Applied Metamaterials (2016-)

➤ **Guest editor per i seguenti Special Issue di riviste internazionali:**

1. Metamaterials for advanced photonic and plasmonic applications – MDPI Photonics (Co-Guest editors: Filiberto Bilotti, Roma Tre University, and Andrea Alù, City University of New York) - 2019.

2. Special Collection on Recent Advances and Trends in Optical Metamaterials and Metasurfaces - Nanomaterials and Nanotechnology (Co-guest editors: Vincenzo Galdi and Maria Principe, University of Sannio, Mirko Barbuto, Niccolò Cusano University) - 2018.
3. Special issue on "Metamaterials 2017" – Materials (Co-guest editors: Carsten Rockstuhl, Karlsruhe Institute of Technology, Francesco Monticone, Cornell University, Davide Ramaccia, Università degli Studi Roma Tre)
4. Special issue on "Metamaterials 2016" – EPJ Applied Metamaterials (Co-guest editor: Christos Argyropoulos, University of Nebraska–Lincoln) - 2016.
5. Special issue on "Metamaterials 2015" – EPJ Applied Metamaterials (Co-guest editor: Christos Argyropoulos, University of Nebraska–Lincoln) - 2015.

➤ **Revisore per le seguenti riviste scientifiche e conferenze internazionali**

1. *IEEE*: IEEE Transaction on Antennas and propagation (dal 2013); IEEE Antennas and Wireless Propagation Letters (dal 2013); IEEE Microwave Theory and Techniques (dal 2014); IEEE Sensors Journal (dal 2017)
2. *OSA*: Optics Express (dal 2013); Optics Letters (dal 2015); Applied Optics (dal 2015)
3. *AIP*: Journal of Applied Physics (dal 2015); Applied Physics Letters (dal 2016)
4. *Nature*: Scientific Reports (dal 2017); Nature Electronics (dal 2018); Light: Science & Applications (dal 2018).
5. *American Physical Society*: Physical Review B (dal 2013); Physical Review E (dal 2013); Physical Review Letters (dal 2014); Physical Review X (dal 2015)
6. *American Chemical Society*: ACS Photonics (dal 2016)
7. *Royal Society of Chemistry*: Nanoscale (dal 2017)
8. *Wiley*: Annalen der Physik (dal 2017); Physica Status Solidi B: Basic Solid State Physics (dal 2017)
9. *MDPI*: Sustainability (dal 2014); Materials (dal 2015); Applied Science (dal 2016)
10. *Beilstein*: Beilstein Journal of Nanotechnology (dal 2016)
11. *ACES*: Applied Computational Electromagnetics Society Journal (dal 2015)
12. *AEM*: Advanced Electromagnetics (dal 2017)
13. *Elsevier*: Materials & Design (dal 2016)
14. *Academic journal*: Scientific Research and Essays (dal 2014)
15. *Conference*: International Congress on Advanced Electromagnetic Materials in Microwaves and Optics - Metamaterials (dal 2013); International Review of Progress in Applied Computational Electromagnetics (dal 2014); IEEE International Symposium on Antennas and Propagation (dal 2016); European Conference on Antennas and Propagation (dal 2019).

ORGANIZZAZIONE DI EVENTI SCIENTIFICI

➤ **General Chair di conferenze internazionali:**

1. 13th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2019, 16-21 September 2019, Rome, Italy.

➤ **Chair dello Steering Committee di conferenze internazionali:**

1. 17th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2023, 11-16 September, Crete, Greece.
2. 16th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2022, 12-17 September, Siena, Italy.
3. 15th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2021, 2-7 August, New York, USA.
4. 14th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020, 28 September-October 3, New York, USA.
5. 12th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2018.
6. 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017.

➤ **Membro del Comitato Scientifico (Technical Program Committee) di conferenze internazionali**

1. 2019 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, 7-12 July, 2019, Atlanta, Georgia, USA.
2. 2018 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, 8-13 July 2018, Boston, Massachusetts, USA.
3. 2017 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, 09-14 July 2017, San Diego, California, USA.
4. 2016 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, June 26 - July 1, Fajardo, Puerto Rico, USA.
5. 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics - Metamaterials 2016, 17-22 September 2016, Crete, Greece.
6. 9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics - Metamaterials 2015, 7-10 September 2015, Oxford, UK.
7. 8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics - Metamaterials 2014, 25-28 August 2014, Copenhagen, Denmark.

➤ **Technical Program Coordinator** per il topic “Electromagnetics and Materials” della conferenza internazionale 2016 IEEE International Symposium on Antennas and

Propagation/USNC-URSI National Radio Science meeting (Fajardo, Porto Rico, 26 Giugno-1 Luglio, 2016).

➤ **Membro della “Award Committee” di conferenze internazionali:**

1. 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017.

➤ **Chairman di sessioni di conferenze internazionali:**

1. “Exotic effects at microwaves” - 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017 (30 August 2017).
2. “New effects” - 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016 (22 September 2016).
3. “All-dielectric metastructures and metasurfaces” - 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016 (19 September 2016).
4. “Nanoelectromagnetics” - 2016 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting (29 June 2016) (Co-Chair: Dimitrios Sounas, University of Texas at Austin, USA).
5. Session number 2 of the 2nd Minisymposium on Mathematics in Engineering and Technology - 13th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2015 (23 September 2015).
6. “Metamaterials for Antennas I” - 9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2015 (9 September 2015).
7. “Graph Theory and Statistics Applied to Engineering Problems” of the 1st Minisymposium on Mathematics in Engineering and Technology - 12th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2014 (23 September 2014).
8. “Microwave and RF Metamaterials” - 8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2014 (25 August 2014).

PREMI E RICONOSCIMENTI

➤ **Articoli selezionati come Editor’s Choice/Suggestion:**

1. “*The Design of Optical Circuit-Analog Absorbers through Electrically Small Nanoparticles*” (2019) - MDPI Photonics.
2. “*Tunable scattering cancellation cloak with plasmonic ellipsoids in the visible*” (2017) – Physical Review B.

- **“Outstanding Associate Editor”** per gli anni 2018/2019, 2019/2020 e 2020/2021 per la rivista internazionale **IEEE Transactions on Antennas & Propagation**.
- Elevato **IEEE Senior Member** (Febbraio 2019).
- **EMTS 2019 Young Scientist Award (YSA)** assegnato dall'URSI Commission B (Fields and waves, Electromagnetic theory and applications).
- **Co-autore del paper** *IEEE Trans. Ant. Prop.*, vol. 65, pp. 4931-4934, 2017 premiato come **miglior lavoro presentando da un giovane del Chapter MTT-S/AP-S Centro-Sud Italia** per la categoria **Antennas and Propagation nel 2018**.
- **Outstanding Reviewer** per gli anni 2014/2015, 2015/2016, 2016/2017, 2017/2018 e 2018/2019 per la rivista internazionale **IEEE Transactions on Antennas & Propagation**.
- **Membro del team 1° classificato al premio innovazione Finmeccanica per i giovani**, edizione 2015, categoria studenti/neolaureati.
- **Vincitore di un travel grant** per la partecipazione alla conferenza **Metamaterials 2013** (Bordeaux, France).
- **Vincitore del progetto di ricerca** “Promotori tecnologici per l’innovazione” (III Edizione) finanziato dalla Provincia di Roma per una ricerca relativa all’utilizzo del Ground Penetrating Radar per l’analisi non invasiva di siti archeologici. Il progetto di ricerca è stato presentato dalla GRS s.r.l. in qualità di azienda patner.
- **Secondo classificato alla Student paper Competition** della conferenza internazionale **Metamaterials 2012** (St. Petersburg, Russia).
- **Finalista alla Student Paper Competition** della conferenza internazionale **IEEE AP-S 2012** (Chicago).

ATTIVITÀ DI RICERCA

Progetto e applicazioni dei materiali artificiali ingegnerizzati, metamateriali e metasuperfici a microonde, nell’infrarosso e a frequenze ottiche. Progetto di metamateriali a larga banda caricati con circuiti attivi di tipo non-Foster.

Studio delle proprietà di scattering e di assorbimento elettromagnetico dei materiali. Progetto dispositivi di cloaking a singolo strato e multi-strato basati sulla cancellazione dello scattering e relative applicazioni alla teoria delle antenne e alla sensoristica elettromagnetica.

Modellistica elettromagnetica di materiali artificiali e superfici nano- e micro- strutturate.

Studio delle proprietà elettromagnetiche degli array di nanoparticelle plasmoniche e relative applicazioni.

<i>Documenti</i>	<i>Citazioni</i>	<i>h-index</i>
125	1521	23

PUBBLICAZIONI SCIENTIFICHE

➤ **Articoli pubblicati su rivista**

- J1. A. **Monti**, S. Vellucci, M. Barbuto, D. Ramaccia, M. Longhi, C. Massagrande, A. Toscano, and F. Bilotti, "Quadratic-Gradient Metasurface-Dome for Wide-Angle Beam Steering Phased Array with Reduced Gain-Loss at Broadside," *IEEE Transactions on Antennas and Propagation*, vol. 71, pp. 2022–2027, 2023.
- J2. S. Pramanik, S.C. Bakshi, C. Koley, D. Mitra, A. **Monti**, and F. Bilotti, "Active Metasurface based Reconfigurable Polarization Converter with Multiple and Simultaneous Functionalities," *IEEE Antenna and Wireless Propagation Letters*, vol. 22, pp. 522 – 526, 2023.
- J3. Z.H. Zarghani, A. **Monti**, A. Alù, F. Bilotti, and A. Toscano, "Acoustic Embedded Eigenstates in Metasurface-Based Structures," *Appl. Phys. Lett.*, vol. 121, 192202, 2022.
- J4. M. Barbuto, Z. Hamzavi-Zarghani, M. Longhi, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, F. Bilotti, "Metasurfaces 3.0: a new paradigm for enabling smart electromagnetic environments," *IEEE Transactions on Antennas and Propagation*, vol. 70, pp. 8883-8897, 2022.
- J5. D. Ramaccia, M. Barbuto, A. **Monti**, S. Vellucci, C. Massagrande, A. Toscano, and F. Bilotti, "Metasurface dome for above-the-horizon grating lobes reduction in 5G-NR Systems," *IEEE Antenna and Wireless Propagation Letters*, vol. 21, pp. 2176-2180, 2022.
- J6. A. **Monti**, S.H. Raad, Z. Atlasbaf, A. Toscano, and F. Bilotti, "Maximizing the forward scattering of dielectric nanoantennas through surface impedance coatings," *Opt. Lett.*, vol. 47, pp. 2386-2389, 2022.
- J7. S.H. Raad, Z. Atlasbaf, A. **Monti**, A. Toscano, and F. Bilotti, "On the surface impedance modeling of metasurfaces composed of graphene-coated spherical nano-particles," *JOSA B*, vol. 39, pp. 917-923, 2022.
- J8. S. Vellucci, D. De Sibi, A. **Monti**, M. Barbuto, M. Salucci, G. Oliveri, A. Massa, A. Toscano, F. Bilotti, "Multi-Layered Coating Metasurfaces Enabling Frequency Reconfigurability in Wire Antenna," *IEEE Open Journal of Antennas and Propagation*, vol. 3, pp. 206-216, 2022.
- J9. M. Barbuto, Z.H-Zarghani, M. Longhi, A.V. Marini, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, F. Bilotti, "Intelligence enabled by 2D Metastructures in Antennas and Wireless Propagation Systems," *IEEE Open Journal of Antennas and Propagation*, vol. 3, pp. 135-153, 2021.

- J10. M. Barbuto, Z. Hamzavi-Zarghani, M. Longhi, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, F. Bilotti, "Metasurfaces 3.0: a new paradigm for enabling smart electromagnetic environments," *IEEE Transactions on Antennas and Propagation*, in press.
- J11. S. Vellucci, A. **Monti**, M. Barbuto, G. Oliveri, M. Salucci, A. Toscano, and F. Bilotti, "On the Use of Non-Linear Metasurfaces for Circumventing Fundamental Limits of Mantle Cloaking for Antennas," *IEEE Transactions on Antennas and Propagation*, vol. 69, pp. 5048-5053, 2021.
- J12. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Progress and perspective on advanced cloaking metasurfaces: from invisible to intelligent antennas," *EPJ Applied Metamaterials*, vol. 8, 7, 2021.
- J13. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Design of High-Q Passband Filters Implemented through Multipolar All-Dielectric Metasurfaces," *IEEE Transactions on Antennas and Propagation*, in press.
- J14. M. Barbuto, D. Lione, A. **Monti**, S. Vellucci, F. Bilotti, and A. Toscano, "Waveguide Components and Aperture Antennas with Frequency- and Time-Domain Selectivity Properties," *IEEE Transactions on Antennas and Propagation*, vol. 68, pp. 7196-7201, 2020.
- J15. A. **Monti**, A. Alù, A. Toscano, F. Bilotti, "Surface impedance modeling of all-dielectric metasurfaces," *IEEE Transactions on Antennas and Propagation*, vol. 68, pp. 1799-1811, 2020.
- J16. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, F. Bilotti, "Waveform-selective mantle cloaks for intelligent antennas," *IEEE Transactions on Antennas and Propagation* vol. 68, pp. 1717-1725, 2020.
- J17. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "The design of optical circuit-analog absorbers through electrically small nanoparticles," *Photonics*, vol. 6, 26, 2019.
- J18. G. Moreno, A. Yakovlev, H.M. Bernety, D.H. Werner, H. Xin, A. **Monti**, F. Bilotti, and A. Alù, "Wideband elliptical metasurface cloaks in printed antenna technology," *IEEE Transaction on Antennas and Propagation*, vol. 66, pp. 3512-3525, 2018.
- J19. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Metasurface-based anti-reflection coatings at optical frequencies," *J. Opt.*, in press, 2018.
- J20. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Narrowband transparent absorbers based on ellipsoidal nanoparticles," *Applied Optics*, vol. 56, pp. 7533-7538, 2017.
- J21. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Use of Mantle Cloaks to Increase Reliability of Satellite-to-Ground Communication Link," *IEEE J. Multiscale and Multiphys. Comput. Techn.*, vol. 2, pp. 168-173, 2017.

- J22. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Satellite applications of electromagnetic cloaking," *IEEE Transaction on Antennas and Propagation*, vol. 65, pp. 4931-4934, 2017.
- J23. A. **Monti**, A. Toscano, and F. Bilotti, "Analysis of the scattering and absorption properties of ellipsoidal nanoparticle arrays for the design of full-color transparent screens," *Journal of Applied Physics*, vol. 121, 243106, 2017.
- J24. C. Argyropoulos, and A. **Monti**, Editorial of the Special Issue: "Artificial materials for advanced applications in electromagnetics and mechanics", *EPJ Applied Metamaterials*, vol. 4, E2, 2017.
- J25. S. Vellucci, A. **Monti**, A. Toscano, and F. Bilotti, "Scattering manipulation and camouflage of electrically-small objects through metasurfaces," *Physical Review Applied*, vol. 7, 034032, 2017.
- J26. A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Nonlinear Mantle Cloaking Devices for Power-dependent Antenna Arrays," *IEEE Antenna and Wireless Propagation Letters*, vol. 16, pp. 1727-1730, 2017.
- J27. A. **Monti**, J. Soric, A. Alù, A. Toscano, and F. Bilotti, "Design of cloaked Yagi-Uda antennas," *EPJ Applied Metamaterials*, vol. 3, 10, 2016.
- J28. A. **Monti**, A. Toscano, and F. Bilotti, "Exploiting the surface dispersion of nanoparticles to design optical-resistive sheets and Salisbury absorbers," *Optics Letters*, vol. 41, pp. 3383-3386, 2016.
- J29. M. Fruhnert, A. **Monti**, I. Fernandez-Corbaton, A. Alù, A. Toscano, F. Bilotti, and C. Rockstuhl, "Tunable scattering cancellation cloak with plasmonic ellipsoids in the visible," *Physical Review B*, vol. 93, 245127, 2016 [*PRB Editors' Suggestion*].
- J30. A. **Monti**, J. Soric, M. Barbuto, D. Ramaccia, S. Vellucci, F. Trotta, A. Alù, A. Toscano, and F. Bilotti, "Mantle cloaking for co-site radio-frequency antennas," *Applied Physics Letters*, vol. 108, 11350, 2016.
- J31. P. Gori, C. Guattari, F. Asdrubali, R. de Lieto Vollaro, A. **Monti**, D. Ramaccia, F. Bilotti, and A. Toscano, "Sustainable Acoustic Metasurfaces for Sound Control," *Sustainability*, vol. 8, 107, 2016.
- J32. D. Ramaccia, M. Barbuto, A. **Monti**, A. Verrengia, F. Trotta, D. Muha, S. Hrbar, F. Bilotti, and A. Toscano, "Exploiting Intrinsic Dispersion of Metamaterials for designing Broadband Aperture Antennas: Theory and Experimental verification," *IEEE Transactions on Antennas and Propagation*, vol. 64, pp. 1141-1146, 2016.
- J33. C. Argyropoulos, and A. **Monti**, Editorial to the topical issue "Advanced Metamaterials in Microwaves, Optics and Mechanics", *EPJ Appl. Metamat.*, vol. 2, 1, 2015.

- J34. J. Soric, A. **Monti**, A. Toscano, F. Bilotti, and A. Alù, "Dual-Polarized Reduction of Dipole Antenna Blockage Using Mantle Cloaks," *IEEE Transactions on Antennas and Propagation*, vol. 62, pp. 4827-4834, 2015.
- J35. J. C. Soric, A. **Monti**, A. Toscano, F. Bilotti, and A. Alù, "Multiband and Wideband Bilayer Mantle Cloaks," *IEEE Transactions on Antennas and Propagation*, vol. 63, pp. 3235-3240, 2015.
- J36. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical scattering cancellation through arrays of plasmonic nanoparticles: a review," *Photonics*, vol. 2, pp. 540-552, 2015 (invited paper for the Special Issue "New Frontiers in Plasmonics and Metamaterials").
- J37. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical invisibility through metasurfaces made of plasmonic nanoparticles," *Journal of Applied Physics*, vol. 117, 123103, 2015.
- J38. A. **Monti**, J. Soric, A. Alù, A. Toscano, and F. Bilotti, "Anisotropic mantle cloaks for TM and TE scattering reduction," *IEEE Transactions on Antennas and Propagation*, vol. 63, pp. 1775-1788, 2015.
- J39. J. Soric, R. Fleury, A. **Monti**, A. Toscano, F. Bilotti, A. Alù, "Controlling scattering and absorption with metamaterial covers," *IEEE Transactions on Antennas and Propagation*, vol. 62, pp. 4220-4229, 2014.
- J40. A. **Monti**, L. Scorrano, S. Tricarico, F. Bilotti, A. Toscano, and L. Vegni, "Achieving PMC boundary conditions through metamaterials," *COMPEL - The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, vol. 32, pp. 1876-1890, 2013.
- J41. M. Barbutto, A. **Monti**, F. Bilotti, and A. Toscano, "Design of a non-Foster actively loaded SRR and application in metamaterial-inspired components," *IEEE Transactions on Antennas and Propagation*, vol. 61, pp. 1219-1227, 2013.
- J42. A. **Monti**, J. Soric, A. Alu, F. Bilotti, A. Toscano, and L. Vegni, "Overcoming Mutual Blockage between Neighboring Dipole Antennas using a low-profile Patterned Metasurface," *IEEE Antenna and Wireless Propagation Letters*, vol. 11, pp. 1414-1417, 2012.
- J43. A. **Monti**, F. Bilotti, A. Toscano, and L. Vegni, "Possible implementation of epsilon-near-zero metamaterials working at optical frequencies," *Optics Communications*, vol. 285, pp. 3412-3418, 2012.
- J44. A. **Monti**, F. Bilotti, and A. Toscano, "Optical cloaking of cylindrical objects by using covers made of core-shell nano-particles," *Optics Letters*, vol. 36, pp. 4479-4481, 2011.

➤ **Invited talk a conferenze internazionali**

- I1. A. **Monti**, S. Vellucci, M. Barbutto, A. Toscano, and F. Bilotti, "Non-planar Phase-Gradient Metasurfaces for Spatially-Dispersive Beam-Steering Devices,"

Proceedings of the Sixteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials2022, Siena, Italy, September 12-17, 2022.

- I2. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Design of electromagnetic spatial filters exploiting the normal polarization of all-dielectric metasurfaces," *Proceedings of the 2022 3rd URSI Atlantic and Asia Pacific Radio Science Meeting (AT-AP-RASC)*, Gran Canaria, Spain, May 29 - June 3, 2022.
- I3. A. **Monti**, A. Alù, A. Toscano, F. Bilotti, "Advanced Functionalities Enabled by Dipolar and Multipolar All-Dielectric Metasurfaces," *Proceedings of the Fifteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials2021*, New York, USA, September 20-25, 2021.
- I4. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Exploiting the spatial dispersion of all-dielectric metasurfaces for realizing ultra-thin angular filters and anti-reflection coatings at extreme angles," *Proceedings of the 2021 International Conference on Electromagnetics in Advanced Applications - ICEAA 2021*, Honolulu, USA, August 09-13, 2021.
- I5. A. **Monti**, A. Alù, A. Toscano, F. Bilotti, "Tailoring the Interactions Between Electric and Magnetic Dipoles in Plasmonic and Dielectric Metasurfaces," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials2020*, New York, USA, September 28-October 3, 2020.
- I6. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical metasurfaces based on spheroidal nanoparticles: theory and applications," *International Symposium on Electromagnetic Theory (URSI EMTS 2019)*, 27-31 May 2019, San Diego, USA.

➤ **Invited talk a seminari e workshop**

- W1. "Metasurfaces for innovative and intelligent antenna systems," at the scientific workshop *Recent Trends in Electromagnetics and Optics - RTEOp 2023* (January 17-20, 2023, IEST, Shibpur, India)
- W2. "Metasurfaces for innovative and intelligent antenna systems," final conference of the project *Plasma Technology for Intelligent Antenna Systems* (24 marzo 2022, Villa Mondragone, Monte Porzio Catone, Rome, Italy).
- W3. "Utilizzo dei metamateriali nei sistemi di antenna dei satelliti miniaturizzati," seminario *Nuovi sistemi ibridi e tecnologie in VHF/UHF per lo sviluppo di missioni basate su formazioni strette di microsattelliti* (23 novembre 2021, Sapienza University, Rome, Italy).
- W4. "Optical metasurfaces based on spheroidal plasmonic nanoparticles: theory and applications," at the scientific workshop *The role of Electromagnetics in the NanoEngineering Flagship* (12th European Conference on Antennas and Propagation, 9-13 April 2018, London, UK).
- W5. "Electromagnetic invisibility for antenna systems," at *Workshop on Metamaterials* (13 May 2014, DTU, Copenhagen, Denmark).

➤ **Articoli pubblicati su atti di conferenza**

- C1. D. Ramaccia, M. Barbuto, A. **Monti**, S. Vellucci, A. Alù, A. Toscano, and F. Bilotti, "Recent Developments of Functionalized Antennas Enabled by Metasurfaces (Invited)," Proceedings of the 2022 IEEE Conference on Antenna Measurements & Applications, Guangzhou, China, December 14-17, 2022 (*invited paper*).
- C2. M. Barbuto, M. Longhi, Z.H. Zarghani, A.V. Marini, A. **Monti**, D. Ramaccia, L. Stefanini, S. Vellucci, A. Toscano, and F. Bilotti, "Passive and Active Metasurfaces Enabling New Functionalities for Smart EM Environments", Proceedings of the 2022 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, USA, July 10-15, 2022.
- C3. F. Bilotti, M. Barbuto, Z. Zarghani, M. Longhi, A. **Monti**, D. Ramaccia, L. Stefanini, A. Toscano, S. Vellucci, "The Role of Intelligent Metasurfaces in Smart Electromagnetic Environments," Proceedings of the Sixteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2022, Siena, Italy, September 12-17, 2022 (*invited paper*).
- C4. Z. Zarghani, A. **Monti**, A. Alù, F. Bilotti, and A. Toscano, "Embedded Acoustic Eigenstates in Fabry-Perot Metasurface-based Structures," Proceedings of the Sixteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2022, Siena, Italy, September 12-17, 2022.
- C5. S. Vellucci, M. Longhi, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Antenna Pattern Shaping Through Functionalized Metasurface Coatings," Proceedings of the Sixteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2022, Siena, Italy, September 12-17, 2022.
- C6. S. Vellucci, A. **Monti**, M. Barbuto, M. Longhi, A. Toscano, and F. Bilotti, "Functionalized Metasurfaces enabling Frequency and Radiation Pattern Reconfigurability for Intelligent Antennas," Proceedings of the 2022 3rd URSI Atlantic and Asia Pacific Radio Science Meeting (AT-AP-RASC), Gran Canaria, Spain, May 29 - June 3, 2022.
- C7. A. **Monti**, S. Vellucci, M. Barbuto, M. Longhi, D. Ramaccia, A. Toscano, and F. Bilotti, "Optimal Design of Huygens Metasurfaces for Oblique Incidence through a Microwave Network Approach," Proceedings of the 2022 Microwave Mediterranean Symposium (MMS), Pizzo Calabro, Italy, May 9-13, 2022.
- C8. S. Vellucci, A. **Monti**, M. Barbuto, M. Longhi, A. Toscano, and F. Bilotti, "Metasurface Coatings Enabling Scattering, Frequency, and Radiation Tunability for Next-Generation Antenna Systems," Proceedings of the 2022 Microwave Mediterranean Symposium (MMS), Pizzo Calabro, Italy, May 9-13, 2022.

- C9. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Exploiting Metasurfaces in Wire Antennas Beyond Cloaking Applications," Proceedings of the 2022 16th European Conference on Antennas and Propagation (EuCAP), Madrid, Spain, March 27 - April 1, 2022.
- C10. M. Barbuto, Z. Hamzavi-Zarghani, M. Longhi, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, and F. Bilotti, "Smart Electromagnetic Environments enabled by Metasurfaces 3.0," Proceedings of the 2022 16th European Conference on Antennas and Propagation (EuCAP), Madrid, Spain, March 27 - April 1, 2022 (*invited paper*).
- C11. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "A Self-Filtering Horn Antenna Based on Multipolar All-Dielectric Metasurfaces," *Proceedings of the 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting.*, Marina Bay Sands, Singapore, December 4-10, 2021.
- C12. A. **Monti**, M. Barbuto, C. Massagrande, S. Vellucci, A. V. Marini, D. Ramaccia, A. Toscano, F. Bilotti, "Enhancing the Beam Scanning Capability of Phased Arrays Using Quadratic-Gradient Metasurface Dome," *Proceedings of the 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting.*, Marina Bay Sands, Singapore, December 4-10, 2021.
- C13. S. Vellucci, A. Toscano, F. Bilotti, A. **Monti**, M. Barbuto, "Coating Metasurfaces Enabling Antenna Frequency Reconfigurability for Cognitive Radio System," *Proceedings of the 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting.*, Mariana Bay Sands, Singapore, December 4-10, 2021.
- C14. S. Vellucci, A. Toscano, F. Bilotti, A. **Monti**, M. Barbuto, "Smart Cloaking Metasurfaces for Next-Generation Antenna Systems," Proceedings of the 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting., Marina Bay Sands, Singapore, December 4-10, 2021.
- C15. A. **Monti**, M. Barbuto, D. Ramaccia, A. V. Marini, S. Vellucci, A. Toscano, F. Bilotti, "Gradient Metasurface Dome for Phased arrays able Reducing the Grating Lobes within Single-side Scanning region," *Proceedings of the 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting.*, Marina Bay Sands, Singapore, December 4-10, 2021.
- C16. S. Vellucci, D. De Sibi, A. **Monti**, M. Barbuto, A. Toscano, F. Bilotti, "Frequency Reconfigurable Wire Antennas through Conformal Metasurfaces," *Proceedings of the Fifteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials2021*, New York, USA, September 20-25, 2021.
- C17. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Multi-layered Metasurfaces Enabling Frequency Reconfigurability in Wire Antennas," *Proceedings of the XXXIII General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS)*, Rome, Italy, August 29 - September 5, 2021.

- C18. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Advanced Cloaking Metasurfaces for Wire Antennas," *Proceedings of the XXXIII General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS)*, Rome, Italy, August 29 - September 5, 2021.
- C19. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Design of High-Q Pass-band Filters and Electromagnetic Polarizers through Multipolar All-Dielectric Metasurfaces," *Proceedings of the XXXIII General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS)*, Rome, Italy, August 29 - September 5, 2021.
- C20. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Waveform-selective metasurfaces for electromagnetic cloaking," *Proceedings of the 2021 International Conference on Electromagnetics in Advanced Applications - ICEAA 2021*, Honolulu, USA, August 09-13, 2021.
- C21. A. **Monti**, A. Alù, A. Toscano, F. Bilotti, "Engineering the Electric and Magnetic Response of All-Dielectric Metasurfaces through Core-Shell Mie Resonators," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020*, New York, USA, September 28-October 3, 2020.
- C22. S. Vellucci, M. Barbuto, A. **Monti**, A. Toscano, F. Bilotti, "Antenna Applications of Frequency- And Time-Domain Selective Devices," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020*, New York, USA, September 28-October 3, 2020.
- C23. M. Barbuto, A.V. Marini, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, F. Bilotti, "From Advanced Cloaking Metasurfaces to a New Generation of Intelligent Antennas," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020*, New York, USA, September 28-October 3, 2020.
- C24. A. **Monti**, A. Alù, A. Toscano, F. Bilotti, "Tailoring the Interactions Between Electric and Magnetic Dipoles in Plasmonic and Dielectric Metasurfaces," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020*, New York, USA, September 28-October 3, 2020.
- C25. S. Vellucci, A. **Monti**, M. Barbuto, M. Sallucci, G. Oliveri, A. Toscano, F. Bilotti, "Overcoming Mantle Cloaking Limits In Antenna Applications Through Non-Linear Metasurfaces," *Proceedings of the Fourteenth International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020*, New York, USA, September 28-October 3, 2020.
- C26. M. Barbuto, A.V. Marini, A. **Monti**, D. Ramaccia, S. Vellucci, A. Toscano, F. Bilotti, "Metasurfaces 3.0: a Key Enabling Technology for the Development of beyond-5G Communication Systems," *Proceedings of the Fourteenth*

International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2020, New York, USA, September 28-October 3, 2020.

- C27. S. Vellucci, A. **Monti**, M. Barbuto, M. Salucci, G. Oliveri, A. Toscano, F. Bilotti, "Non-linear Mantle Cloaks for Self-Configurable Power-Dependent Phased Arrays," Proceedings of the 2020 XXXIIIrd General Assembly and Scientific Symposium of the International Union of Radio Science, Rome, Italy, August 29-September 5, 2020.
- C28. S. Vellucci, M. Barbuto, A. **Monti**, A. Toscano, F. Bilotti, "Waveform-Selective Devices for Antenna Applications," Proceedings of the 2020 XXXIIIrd General Assembly and Scientific Symposium of the International Union of Radio Science, Rome, Italy, August 29-September 5, 2020.
- C29. D. Ramaccia, M. Barbuto, A. **Monti**, S. Vellucci, A. Marini, A. Toscano, F. Bilotti, " Latest developments on Non-linear and Time-varying Metasurfaces and Topological Antennas," Proceedings of the 14th European Conference on Antennas and Propagation (EuCAP 2020), Copenhagen, Denmark, March 15-20, 2020.
- C30. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Homogenization of all-dielectric metasurfaces: Theory and applications," Proceedings of the 13th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2019, Rome, Italy, September 16-21, 2019.
- C31. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Self-adaptive invisible antenna trough waveform-depended mantle cloak," Proceedings of the 13th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2019, Rome, Italy, September 16-21, 2019.
- C32. M. Barbuto, A. **Monti**, F. Bilotti, and A. Toscano, "A rectangular waveguide antenna with filtering and beam-steering capabilities," Proceedings of the 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Atlanta, 7-12 July, 2019.
- C33. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Design of waveform-selective mantle cloaks for antenna applications," Proceedings of the 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Atlanta, 7-12 July, 2019.
- C34. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical metasurfaces based on spheroidal nanoparticles: theory and applications," *International Symposium on Electromagnetic Theory (URSI EMTS 2019)*, 27-31 May 2019, San Diego, USA.
- C35. A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Power-dependent invisibility devices for antenna arrays," *International Symposium on Electromagnetic Theory (URSI EMTS 2019)*, 27-31 May 2019, San Diego, USA.
- C36. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Recent developments in the design of waveform-selective mantle cloaks for antenna

applications,” Proceedings of the 12th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2018, Espoo, Finland, 27 August– 01 September, 2018.

- C37. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, “Tailoring Optical Reflections Through Lattices of High-Index Dielectric Nanoparticles,” Proceedings of the 12th International Congress on Artificial Materials for Novel Wave Phenomena – Metamaterials 2018, Espoo, Finland, 27 August– 01 September, 2018.
- C38. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, “Towards Waveform-Selective Cloaking Devices Exploiting Circuit-Loaded Metasurfaces,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C39. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, “Exploiting Electromagnetic Cloaking to Design Compact Nanosatellite Systems,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C40. S. Vellucci, A. **Monti**, A. Toscano, and F. Bilotti, “Scattering Control and Camouflage through Metasurfaces,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C41. A. **Monti**, M. Barbuto, A. Alù, A. Toscano, and F. Bilotti, “Electromagnetic Cloaking for Antenna Arrays,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C42. A. **Monti**, A. Toscano, and F. Bilotti, “Use of Dielectric Nanoparticles for Designing High-Reflection Coatings and Dielectric Mirrors,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C43. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, “Optical absorbers with NPs-based lossy metasurfaces,” Proceedings of the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Boston, 08-13 July, 2018.
- C44. A. Neri, C. Stallo, A. Coluccia, V. Palma, P. Salvatori, A. Vennarini, O. Pozzobon, G. Gamba, S. Fantinato, M. Barbuto, A. **Monti**, F. Bilotti, A. Toscano, F. Rispoli, M. Ciaffi, “An anti-jamming and anti-spoofing digital beamforming platform for the GNSS-based ERTMS train control system,” Proceedings of the 30th international technical meeting of the satellite division of the institute of navigation (ION GNSS) 2017, Portland, Oregon, USA, 25-26 September, 2017.
- C45. M. Barbuto, A. **Monti**, A. Alù, D. Ramaccia, A. Tobia, S. Vellucci, A. Toscano, and F. Bilotti, “Invisible antennas for crowded radio platforms,” IEEE MTT-S

International Microwave Workshop Series on Advanced Materials and Processes, Pavia, Italy, 20-22 September, 2017.

- C46. M. Barbuto, A. **Monti**, D. Ramaccia, A. Tobia, S. Vellucci, A. Alù, A. Toscano, F. Bilotti, "Electromagnetic Cloaking for Antennas," Proceedings of the 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017, Marseille, France, 28 August– 02 September, 2017 (*invited paper*).
- C47. S. Vellucci, A. **Monti**, M. Barbuto, A. Toscano, and F. Bilotti, "Enhancing The Performances Of Satellite Telecommunication Systems Exploiting Electromagnetic Cloaking," Proceedings of the 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017, Marseille, France, 28 August– 02 September, 2017.
- C48. A. **Monti**, D. Ramaccia, A. Alù, A. Toscano, and F. Bilotti, "Investigation of the Drexhage's effect for electrically small dipoles over a flat metasurface," Proceedings of the 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017, Marseille, France, 28 August– 02 September, 2017.
- C49. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical metasurfaces based on plasmonic nanoparticles for anti-reflection coatings and transparent absorbers," Proceedings of the 11th International Congress on Engineered Material Platforms for Novel Wave Phenomena – Metamaterials 2017, Marseille, France, 28 August– 02 September, 2017.
- C50. M. Barbuto, A. **Monti**, D. Ramaccia, A. Tobia, S. Vellucci, F. Bilotti, and A. Toscano, "Cloaking and magnet-less non-reciprocity through metamaterials," Workshop on Modelling of high performance acoustic structures Porous media, metamaterials and sonic crystals, Rome, Italy, 24-25 January, 2017.
- C51. S. Vellucci, A. **Monti**, G. Oliveri, A. Massa, A. Toscano, and F. Bilotti, "Scattering Camouflage and Manipulation Using Metasurfaces," Proceedings of the 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016, Crete, Greece, 17– 22 September, 2016.
- C52. A. **Monti**, J. Soric, M. Barbuto, D. Ramaccia, S. Vellucci, F. Trotta, A. Alù, A. Toscano, and F. Bilotti, "Cloaking Receiving and Transmitting Antennas: Theoretical Aspects and Applications," Proceedings of the 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016, Crete, Greece, 17– 22 September, 2016 (*invited paper*).
- C53. A. **Monti**, A. Toscano, and F. Bilotti, "Low-loss and lossy optical metasurfaces based on ellipsoidal nanoparticles," Proceedings of the 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016, Crete, Greece, 17– 22 September, 2016.

- C54. M. Barbuto, A. **Monti**, D. Ramaccia, A. Tobia, S. Vellucci, F. Bilotti, A. Toscano, "Optimal design of metamaterial-inspired devices for improving the performances of horn antennas," Proceedings of the 14th International Workshop on Optimization and Inverse Problems in Electromagnetism, Rome, Italy, 13-15 September, 2016.
- C55. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Optical cloaking of plasmonic materials through nanoparticles-based metasurfaces," Proceedings of the 2016 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Fajardo, Puerto Rico, 26 June-1 July, 2016.
- C56. A. **Monti**, M. Barbuto, F. Bilotti, and A. Toscano, "Nonlinear metasurfaces for power-dependent mantle cloaking devices," Proceedings of the 2016 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Fajardo, Puerto Rico, 26 June-1 July, 2016.
- C57. G. Guarnieri, G. Mauriello, S. Scafè, M. Barbuto, A. **Monti**, D. Ramaccia, A. Tobia, S. Vellucci, A. Toscano, and F. Bilotti, "Metamaterials meeting industrial products: a successful example in Italy," Proceedings of the 2016 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Fajardo, Puerto Rico, 26 June-1 July, 2016.
- C58. F. Bilotti, A. Toscano, M. Barbuto, A. **Monti**, D. Ramaccia, A. Tobia, F. Trotta, S. Vellucci, "Metamaterials and related applications at visible frequencies," Proceedings of GioNa 2016, Rome, Italy, 22-23 June, 2016.
- C59. A. **Monti**, A. Toscano, and F. Bilotti, "Optical metasurfaces based on ellipsoidal nanoparticles: modeling and applications," Proceedings of GioNa 2016, Rome, Italy, 22-23 June, 2016.
- C60. F. Asdrubali, F. Bilotti, P. Gori, C. Guattari, A. **Monti**, D. Ramaccia, and A. Toscano, "FEM simulations of Acoustic Metasurfaces," Proceedings of the 13th International Workshop on Finite Elements for Microwave Engineering, Florence, Italy, 16 - 18 May, 2016.
- C61. M. Barbuto, F. Bilotti, A. **Monti**, D. Ramaccia, A. Tobia, A. Toscano, and S. Vellucci, "Applications of numerical methods in metamaterials at microwave frequencies," Proceedings of the 13th International Workshop on Finite Elements for Microwave Engineering, Florence, Italy, 16 - 18 May, 2016.
- C62. L. Tenuti, G. Oliveri, A. **Monti**, F. Bilotti, A. Toscano, A. Massa, "Design of Mantle Cloaks Through a System-by-Design approach," Proceeding of the 10th European Conference on Antennas and Propagation - EuCAP 2016, Davos, Switzerland, 10-15 April, 2016.
- C63. D. D'angeli, A. Donno, and A. **Monti**, "Computing the Wiener index in Sierpiński carpet graphs," Proceedings of the 13th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2015, Rhodes, Greece, 23 – 29 September, 2015.

- C64. A. **Monti**, J. Soric, A. Alù, A. Toscano, and F. Bilotti, "Analytical modeling for microwave and optical metasurfaces," Proceedings of the 13th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2015, Rhodes, Greece, 23 – 29 September, 2015.
- C65. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Modeling and design of optical mantle cloaking devices," Proceedings of the 9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2015, Oxford, United Kingdom, 07– 10 September, 2015.
- C66. A. **Monti**, L. Tenuti, G. Oliveri, J. Soric, A. Alù, A. Massa, A. Toscano, and F. Bilotti, "Recent developments in the design of microwave mantle cloaks with improved performance and relative applications," Proceedings of the 9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2015, Oxford, United Kingdom, 07– 10 September, 2015.
- C67. L. Tenuti, G. Oliveri, F. Viani, A. Massa, A. **Monti**, F. Bilotti, and A. Toscano, "A System-by-Design Approach for the Synthesis of Multi-Layer Mantle Cloaks," Proceedings of the 2015 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Vancouver, Canada, 19-25 July, 2015.
- C68. A. **Monti**, J. Soric, A. Alù, A. Toscano, and F. Bilotti, "Mantle cloaking: Antenna applications," Proceedings of the 2015 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Vancouver, Canada, 19-25 July, 2015.
- C69. D. Ramaccia, A. Verrengia, F. Bilotti, A. Toscano, A. **Monti**, M. Barbuto, F. Trotta, D. Muha, S. Hrabar, "Experimental Verification of Broadband Antennas loaded with Metamaterials," Proceedings of the 2015 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Vancouver, Canada, 19-25 July, 2015.
- C70. A. **Monti**, M. Barbuto, D. Ramaccia, A. Toscano, and F. Bilotti, "Broadband Enhanced Transmission through a Single Aperture based on Actively Loaded SRR," Proceedings of the 12th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2014, Rhodes, Greece, 22 – 28 September, 2014.
- C71. M. Barbuto, A. **Monti**, D. Ramaccia, F. Bilotti, and A. Toscano, "Design and realization of MTM-inspired absorbers using graphite resistive sheets," Proceedings of the 12th International Conference of Numerical Analysis and Applied Mathematics – ICNAAM 2014, Rhodes, Greece, 22 – 28 September, 2014.
- C72. A. **Monti**, J. Soric, A. Alù, A. Toscano, and F. Bilotti, "Advances in Mantle Cloaking Design," Proceedings of the 17th European Microwave Week conference, Rome, Italy, 5 – 10 October, 2014.

- C73. M. Barbuto, F. Bilotti, A. **Monti**, D. Ramaccia, and A. Toscano, "Use of metamaterials to improve electrical and radiating performances of horn antennas," Proceedings of XX RiNEM, Padua, Italy, 15 - 18 September, 2014.
- C74. A. **Monti**, L. Tenuti, G. Oliveri, A. Alù, A. Massa, A. Toscano, and F. Bilotti, "Design of multi-layer mantle cloaks," Proceedings of the 8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2014, Copenhagen, Denmark, 25– 28 August, 2014.
- C75. A. **Monti**, J. Soric, R. Fleury, A. Alù, A. Toscano, F. Bilotti, "Mantle cloaking and related applications in antennas," Proceeding of the International Conference on Electromagnetic in Advanced Applications, Palm Beach, Aruba, 3 – 8 August, 2014.
- C76. D. Ramaccia, M. Barbuto, A. **Monti**, F. Bilotti, and A. Toscano, "Horn Nano-antenna: Efficient Wideband Radiator at Near-infrared and Optical frequencies," Proceedings of the Plasmonica 2014 workshop, Rome, Italy, 30 June – 2 July, 2014.
- C77. A. **Monti**, M. Barbuto, D. Ramaccia, A. Toscano, and F. Bilotti, "Use of plasmonic nanoparticles to achieve mantle cloaking at optical frequencies," Proceedings of the Plasmonica 2014 workshop, Rome, Italy, 30 June – 2 July, 2014.
- C78. A. **Monti**, A. Toscano, and F. Bilotti, "Optical mantle cloaking using plasmonic nanoparticle arrays," Proceedings of the Nanoplasm 2014 symposium, Cetraro, Italy, 16 – 20 June, 2014 (*invited paper*).
- C79. G. Bella, F. Fortuna, M. Barbuto, R. Conti, R. Cozzolino, S. Di Francesco, A. Donno, V. Duraccio, O. Giannini, V. Montesarchio, A. **Monti**, L. Tribioli, and F. Trovalusci, "Virtual academic teaching for next generation engineers," Proceedings of the 12th Biennial Conference on Engineering Systems Design and Analysis – ESDA 2014, Copenhagen, Denmark, 25 – 27 June, 2014.
- C80. A. **Monti**, A. Alù, A. Toscano, and F. Bilotti, "Design and simulations of dual-polarized mantle cloaking devices," Proceedings of the 7th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2013, Bordeaux, France, 16 – 19 September, 2013.
- C81. A. **Monti**, J. Soric, A. Alù, F. Bilotti, and A. Toscano, "Mantle cloak devices for TE and TM polarizations," Proceedings of the 2013 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Orlando, Florida, USA, 07-13 July, 2013.
- C82. A. **Monti**, A. Alù, and F. Bilotti, "Cloaked half-wave dipole antennas using the mantle-cloaking approach," Proceedings of the 6th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2012, St. Petersburg, Russia, 17 – 22 September, 2012.

- C83. M. Barbuto, A. **Monti**, D. Ramaccia, F. Bilotti, A. Toscano, and L. Vegni, "Metamaterial activities at microwave and optical frequencies at "Roma Tre" University," Proceedings of XIX RiNEm, Rome, Italy, 10-14 September, 2012.
- C84. M. Barbuto, A. **Monti**, A. Toscano, and F. Bilotti, "Design of a Non-Foster Actively Loaded Metamaterial-Inspired Antenna," Proceedings of the 2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Chicago, IL, USA, 08-14 July, 2012.
- C85. A. **Monti**, A. Toscano, and F. Bilotti, "Metasurface Mantle Cloak for Antenna applications," Proceedings of the 2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Chicago, IL, USA, 08-14 July, 2012.
- C86. D. Ramaccia, A. **Monti**, M. Barbuto, F. Bilotti, and A. Toscano, "Realizzazione e caratterizzazione di fogli resistivi a base di grafite," Convegno su Campi elettromagnetici e innovazione tecnologica in ambito Difesa, Industria e Ricerca, C.I.S.A.M., Pisa, Italy, 2012.
- C87. M. Barbuto, A. **Monti**, F. Bilotti, and A. Toscano, "Employment of non-Foster active loads to improve the operation bandwidth of SRR loaded monopole antennas," Proc. of the 8th IEEE International Workshop on Antenna Technology (iWAT 2012), pp. 285-288, Tucson, AX, USA, 5-7 March, 2012 (*invited paper*).
- C88. M. Barbuto, A. **Monti**, F. Bilotti, and A. Toscano, "Some applications of MTMs based on non-Foster active loads," Proceedings of the Fifth International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2011, Barcelona, Spain, 10 – 15 October, 2011.