

PERSONAL INFORMATION



Name Daniele Cavallo
Date/place of birth 01/05/1983, Benevento, Italy
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EXPERTISE / RESEARCH INTERESTS

Applied electromagnetics, antennas, microwave and terahertz components / Terahertz on-chip antennas, integrated antennas for car radars and ultra-fast wireless communication, phased arrays, wideband connected array antennas, theory and design of artificial dielectrics, dielectric lens antennas

POSITIONS HELD

- **Associate professor** 2021 - present
Delft University of Technology, Delft, Netherlands
- **Assistant professor (tenured)** 2019 - 2020
Delft University of Technology, Delft, Netherlands
- **Assistant professor (tenure track)** 2015 - 2018
Delft University of Technology, Delft, Netherlands
- **Visiting researcher** 2015 (Mar. - May)
Chalmers University of Technology, Gothenburg, Sweden
- **Postdoc** 2011 - 2015
Delft University of Technology, Delft, Netherlands
- **Ph.D. student** 2007 - 2011
Eindhoven University of Technology, Eindhoven, Netherlands
- **Antenna researcher** 2007 - 2011
TNO Defence, Security and Safety, The Hague, Netherlands

OTHER POSITIONS

- **Master Coordinator** of the Track **Wireless Communication and Sensing (WiCoS)** Nov. 2018 - present
of the Master program in Electrical Engineering at Delft University of Technology
- **Associate Editor** of the **IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION** 2016 - present
- **Co-coordinator** of the **working group "Active Array Antennas"** in the European Association on Antennas and Propagation (EurAAP) Apr. 2019 - present
- **Management Committee Member** of the **COST Action "CA18223 - Future communications with higher-symmetric engineered artificial materials"** Nov. 2019 - present

EDUCATION

- **Ph.D. in Electrical Engineering (Cum Laude)** 2007 - 2011
Eindhoven University of Technology, Eindhoven, Netherlands
- **M.Sc. in Telecommunication Engineering (Cum Laude + Honour Mention)** 2004 - 2007
University of Sannio, Benevento, Italy
- **B.Sc. in Telecommunication Engineering (Cum Laude)** 2001 - 2004
University of Sannio, Benevento, Italy
- **Scientific high school degree (Score: 100/100)** 1996 - 2001
Scientific Lyceum G. Rummo, Benevento, Italy

AWARDS AND RECOGNITIONS

- **Best Paper Award in Electromagnetics and Antenna Theory** at the European Conference on Antennas and Propagation (EuCAP) 2017, Paris, France.
- **Best Innovative Paper Prize** at the 30th ESA Workshop on Antennas for Earth Observation, Science, Telecommunication and Navigation Space Missions, 2008, Noordwijk, The Netherlands.
- **Ph.D.** degree awarded with **Cum Laude distinction** (the top 5 % Ph.D. graduates are eligible).
- **Nominee** for the **Eindhoven University of Technology Doctoral Project Award** 2012 as the “Best Doctoral Project”.
- Co-promotor of the Ph.D. student receiving the **Honorable Mention** at the Student Paper Competition of the IEEE Antennas and Propagation Society International Symposium 2019, Atlanta, Georgia, USA.
- Co-promotor of the Ph.D. student receiving the **Else Kooi Prijs** 2016: annual award for young researchers in the field of applied semiconductor research conducted in the Netherlands. The award comes with a prize of 5000 €.
- Co-promotor of the Ph.D. student receiving the **Special Mention for Excellent Presentation** at EuCAP 2015, Lisbon, Portugal.
- Supervisor of the student receiving the **Best Student Paper Award** at EuCAP 2013, Gothenburg, Sweden.
- Co-recipient of the **Best Poster Award** at the Annual Netherlands Antenna Research Framework (NARF) Workshop, 2013.
- Finalist for the Best Paper Award in Electromagnetics at EuCAP 2021, Düsseldorf, Germany.
- Finalist for the Best Paper Award in Electromagnetics and Antenna Theory at EuCAP 2019, Krakow, Poland.
- Co-promotor of the Ph.D. student finalist for Best Student Paper Award of EuCAP 2019, Krakow, Poland.
- Finalist for the Best Paper Award for Antenna Design and Applications at EuCAP 2018, London, U.K..
- Shortlisted for the R. W. King award 2017 of the *IEEE Transactions on Antennas & Propagation* with the paper D. Cavallo and C. Felita, “Analytical formulas for artificial dielectrics with nonaligned layers,” *IEEE TAP*, 65(10), 2017.

GRANTS / PROJECTS

- List of past, present projects:

Project title, years	Budget related to group	Role	Funding Agency
Sub-THz Antennas for Next Generation Automotive Radars (STANGAR): wide angle scanning planar arrays	263 k€	Principal investigator	NXP
Wideband wide-scanning arrays with improved polarization purity, 2021-2025	260 k€	Principal investigator	Thales France
Wideband wide-scanning array with multi-beam capability, 2020-2024	355 k€	Principal investigator	HUAWEI
Antenna user terminal with Wide Angle Impedance Matching (WAIM) metamaterial radome, 2019-2021	250 k€	Principal investigator	European Space Agency (ESA)
WATT LLevel transmitters at mm-waves (WhALE), 2017-2021	250 k€	Co-investigator	Dutch tech. foundation (TTW), NXP
3D Elements for phased array systems (3D-Antenna), 2016-2020	260 k€	Principal investigator	TNO
Wideband phased array design for multi-function radars, 2018-2019	110 k€	Principal Investigator	Thales Airborne Systems
Efficient on-chip antennas for terahertz applications (NWO Veni), 2015-2017	250 k€	Principal Investigator	NWO
Artificial Dielectrics for High-frequency On-Chip antennas (AD-HOC), 2017	150 k€	Co-investigator	European Research Council (ERC)
Mm-wave antennas in package for automotive radar, 2015-2016	40 k€	Principal investigator	NXP
Total amount acquired as applicant or co-applicant:	2188 k€		

PUBLICATION SUMMARY

Journals Papers	Conference Papers	Invited Conf. Papers	Patents	Invited Seminars
31	127	26	2	4
Citation indexes	Google Scholar	Scopus	ISI Web of Science	
Number Citations	991	719	543	
H-index	17	15	14	

SUPERVISION (MSc and PhD Students, Postdocs)

PhDs (9)	- R. Ozzola	Co-promotor	ongoing (2020-24)
	- A. van Katwijk	Co-promotor	ongoing (2019-23)
	- R. van Schelven	Co-promotor	ongoing (2017-21)
	- A. Laguna	Co-supervisor	ongoing (2016-21)
	- S. van Berkel	Co-promotor	past (2015-20), <i>cum laude</i> , currently postdoc at JPL-NASA
	- C. Yepes	Co-promotor	past (2015-20), currently Postdoc at University of Siena, Italy
	- W.H. Syed	Co-promotor	past (2011-15), <i>cum laude</i> , currently IC/Antenna Engineer at NXP
	- O. Yurduseven	Co-supervisor	past (2012-16), currently Senior Antenna Engineer at Huawei
	- L. Cifola	Co-supervisor	past (2011-12), currently Advanced Development Engineer at Thales NL
Postdocs (4)	- H. Shivamurthy	Main supervisor	past (2019-2020)
	- W.H. Syed	Main supervisor	past (2015-2016)
	- N. Turker-Tokan	Daily supervisor	past (2012)
	- F. Tokan	Daily supervisor	past (2012)
MSc (16)	17 (1 ongoing)	11 (Main supervisor), 6 (Daily supervisor)	7 received 'Cum Laude'

Session/Workshops chaired at international conferences

- *Small Antenna Theory*, European Conference on Antennas and Propagation (EUCAP) 2021
- *Reflector feeds*, EUCAP 2021
- *Communication architectures: Part 2 handheld arrays*, EUCAP 2021
- *Slotted waveguide and leaky wave antennas*, EUCAP 2021
- *Scientific Workshop: Integration challenges for mm-wave phased arrays*, EUCAP 2021
- *Antenna arrays and applications I*, IEEE International Symposium on Antennas and Propagation (APS/URSI) 2020
- *Aircraft antennas*, EUCAP 2020 (session chair invitation, but conference was cancelled due to COVID)
- *Future Antennas*, EUCAP 2019
- *Design and Analysis of Metamaterials*, APS/URSI 2017
- *Metasurfaces*, EUCAP 2017
- *Millimeter-Wave, Submillimeter-Wave and Terahertz Antennas*, EUCAP 2015
- *Phased Array Feeding and Impedance Matching*, APS/URSI 2010

Review for Journals/Conference/Grant proposals

I am active as a technical reviewer for several reference journals and member of Technical Program Committee (TPC) for premium conferences in my field. I also reviewed grant proposals. The review activities are listed below:

- *Journals*:
 - IEEE Transaction on Antennas and Propagation (2010-present)
 - IEEE Antennas and Wireless Propagation Letters (2010-present)
 - IEEE Antennas and Propagation Magazine (2017)
 - IEEE Transactions on Terahertz Science and Technology (2014-present)
 - IEEE Transactions on Microwave Theory and Techniques (2016-present)
 - International Journal of Microwave and Wireless Technologies (2016)
 - IET Microwave, Antennas and Propagation (2018)
- *Conferences (TPC)*:
 - European Conference on Antennas and Propagation (2015-2022)
 - Antenna and Propagation Symposium / URSI (2019-2020)
 - International Symposium on Antennas and Propagation (2015,2021)
 - European Microwave Week Conference (2012)
- *Grants*:
 - Reviewer of a proposal for the Icelandic Research Fund (largest fund for academic researchers in Iceland), as an expert outside of Iceland (2013)
 - Internal TU Delft reviewer for NWO Veni proposals (2018)

Memberships

Senior Member of the Institute of Electrical and Electronics Engineers (**IEEE**)

Member of the European Association on Antennas and Propagation (**EurAAP**).

TEACHING EXPERIENCE

- *Courses taught at Master and Bachelor level at TU Delft*
 - Spectral Domain Methods in Electromagnetics (responsible instructor, 2017-present)
 - Guided and wireless EM transfer (responsible instructor, 2018-present)
 - Quasi Optics (lecturer, 2016-present)
 - Guiding and radiating structures (responsible instructor, 2014-2018)
 - Electromagnetics (bachelor course, lecturer, 2018)
 - Electromagnetics (master course, lecturer, 2014-present)
 - Electricity and Magnetism (lecturer, 2018)
 - Sub-mm and terahertz physics and applications (lecturer, 2017)
 - Advanced Electromagnetics (lecturer, 2015)
- *Courses taught at PhD level*
 - Arrays and Reflectarrays (The European School of Antennas, Sep. 3-7 2018, Louvain-La-Neuve, Belgium)
 - Disruptive Antennas Based on Emerging Technologies for Novel Satellite Telecommunication Scheme (Revolve) (The European School of Antennas, Nov. 18-23 2019, Rennes, France)
 - Multi-physics design flow, integration and co-design: antennas (Tom Brazil Doctoral School of Microwaves, European Microwave Week, Sep. 17 2020, Utrecht, The Netherlands)
 - Active Antennas (The European School of Antennas, Nov. 8-12 2021, ESA-ESTEC, Noordwijk, The Netherlands)

Teaching Qualifications

UTQ: University Teaching Qualification. Attended courses: Development of teaching and active learning; Delivery of teaching and active learning; Assessment test construction and analysis; Supervising individual students

University Committees

- Member of the Electrical Engineering Bachelor Design Committee at TU Delft (2020-now).
- Member of Selection Committees for Tenure Track and Technician positions at TU Delft (2015-now)
- Member of the editorial board of the magazine *Quadraad*, of the EEMCS Faculty of TUDelft.
- Member of the "Cloud Group on Values" for defining the faculty core principles
- Jury member at the closing symposium for the final project "The Booming Bass" in the EPO1 (*Elektrotechnisch Project Onderwijs*: Electrotechnical Project Education) in 2016, 2017, 2018, 2020.

Personal Development Courses

- Personal development program for tenure trackers (Leeuwendaal, 2015, over a 3-month period)
- Intercultural & Leadership Development Program (KIT Royal Tropical Institute, 2018, over a 3-month period)

PERSONAL SKILLS

<i>Languages</i>	Italian (<i>native proficiency</i>), English (<i>full professional proficiency</i>), Dutch (<i>basic user</i>)
<i>Social skills</i>	Very good organizational skills, open-mindedness, cooperative attitude Experience acquired in working both independently and in multidisciplinary teams
<i>Technical skills</i>	<i>Operating systems</i> : Windows <i>Programming languages</i> : Fortran, Java, C, C++, Visual Basic, HTML <i>Applications</i> : <ul style="list-style-type: none">- <i>Microsoft Office tools</i>: Word, Excel, Powerpoint, Access, Outlook- <i>Electromagnetic and Circuit CAD tools</i>: Ansys Designer, Ansys HFSS, CST Microwave Studio, Sonnet Suite, ADF, RealTime, 5Spice, ADS- <i>Graphical tools</i>: Corel Draw, MS Picture Manager, MS Paint- <i>Text editors for scientific documents</i>: Latex, Exp, Mathtype, Word Equation Editor- <i>Numerical computing environment</i>: Matlab, Mathematica- <i>Web development</i>: Dreamweaver

Hobbies

Guitar playing (for over 25 years), jazz music, gym, drawing, travelling, jogging

LIST OF PUBLICATIONS

Journal papers (31)

- R. Ozzola, **D. Cavallo**, A. Freni, N. Llombart, and A. Neto, "A benchmark for the number of independent line of sight links on a given volume platform," *IEEE Trans. Antennas Propag.*, in preparation, 2022.
- S. van Berkel, **D. Cavallo**, A. Neto, and N. Llombart, "Tightly sampled leaky-wave connected array with polarization re-usage," *IEEE Trans. Antennas Propag.*, in preparation, 2022.
- A. Pascual Laguna, **D. Cavallo**, J. J. A. Baselmans, and N. Llombart, "Focused connected array antenna as a broadband beam-steering feed for THz quasi-optical systems," *IEEE Trans. Antennas Propag.*, under review, 2021.
- R. van Schelven, M. Spirito and **D. Cavallo**, "Efficient waveguide power combiners at mm-wave frequencies," *IEEE Trans. Antennas Propag.*, under review, 2021.
- **D. Cavallo**, "Parallel plate waveguide feeding structure for planar connected arrays," *IEEE Antenna Wireless Propag. Lett.*, under review, 2021.
- J1.** R. van Schelven and **D. Cavallo**, "Analysis of non-square artificial dielectric layers and application to the design of anisotropic slabs," *IEEE Antenna Wireless Propag. Lett.*, early access, 2022.
- J2.** R. Ozzola, **D. Cavallo**, and A. Neto, "On the relation between beam coupling and feed coupling in wideband antenna arrays," *IEEE Trans. Antennas Propag.*, *IEEE Trans. Antennas Propag.*, accepted, 2021.
- J3.** S. van Berkel, S. Malotau, C. de Martino, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Wideband modeling of CMOS Schottky barrier diode detectors for THz radiometry," *IEEE Trans. THz Sci. Tech.*, vol. 11, no. 5, pp. 495-507, Sep. 2021.
- J4.** F. Tokan, **D. Cavallo**, and A. Neto, "A novel planar, broadband, high gain lateral wave antenna array for body scanning applications," *Journal of Electrical Engineering*, vol. 71, no. 5, pp. 308-316, Nov. 2020.
- J5.** S. van Berkel, S. Malotau, C. de Martino, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Wideband double leaky slot lens antennas in CMOS technology at sub-millimeter wavelengths," *IEEE Trans. THz Sci. Tech.*, vol. 10, no. 5, pp. 540-553, Jul. 2020.
- J6.** C. Yepes, E. Gandini, S. Monni, A. Neto, F. E. van Vliet, and **D. Cavallo**, "A linear array of skewed dipoles with asymmetric radiation for angular filtering," *IEEE Antenna Wireless Propag. Lett.*, vol. 19, no. 3, pp. 408-412, Mar. 2020.
- J7.** C. Yepes, E. Gandini, S. Monni, A. Neto, F. E. van Vliet, and **D. Cavallo**, "Analysis of tilted dipole arrays: Impedance and radiation properties," *IEEE Trans. Antennas Propag.*, vol. 68, no. 1, pp. 254-265, Jan. 2020.
- J8.** R. van Schelven, **D. Cavallo**, and A. Neto, "Equivalent circuit models of finite slot antennas," *IEEE Trans. Antennas Propag.*, vol. 67, no. 7, pp. 4367-4376, Jul. 2019.
- J9.** **D. Cavallo**, "Analysis of artificial dielectric layers with finite conductivity," *Forum for Electromagnetic Research Methods and Application Technologies (FERMAT)*, vol. 31, communication 5, Jan.-Feb. 2019.
- J10.** **D. Cavallo**, "Dissipation losses in artificial dielectric layers," *IEEE Trans. Antennas Propag.*, vol. 66, no. 12, pp. 7460-7465, Dec. 2018.
- J11.** **D. Cavallo**, W. H. Syed, and A. Neto, "Connected-slot array with artificial dielectrics: A 6 to 15 GHz dual-pol wide-scan prototype," *IEEE Trans. Antennas Propag.*, vol. 66, no. 6, pp. 3201-3206, Jun. 2018.
- J12.** C. Yepes, E. Gandini, S. Monni, A. Neto, F. E. van Vliet, and **D. Cavallo**, "Angular stable frequency selective surface combined with a wide-scan phased array," *IEEE Trans. Antennas Propag.*, vol. 66, no. 2, pp. 1046-1051, Feb. 2018.
- J13.** C. Felita and **D. Cavallo**, "Analytical formulas for artificial dielectrics with non-aligned layers," *IEEE Trans. Antennas Propag.*, vol. 65, no. 10, pp. 5303-5311, Oct. 2017. **(Finalist for the R. W. King award 2017)**
- J14.** **D. Cavallo**, W. H. Syed, and A. Neto, "Equivalent transmission line models for the analysis of edge effects in finite connected and tightly-coupled arrays," *IEEE Trans. Antennas Propag.*, vol. 65, no. 4, pp. 1788-1796, Apr. 2017.
- J15.** R. J. Bolt, **D. Cavallo**, G. Gerini, D. Deurloo, R. Grooters, A. Neto, and G. Toso, "Characterization of a dual-polarized connected-dipole array for Ku-band mobile terminals," *IEEE Trans. Antennas Propag.*, vol. 64, no. 2, pp. 591-598, Feb. 2016.
- J16.** W. H. Syed, **D. Cavallo**, H. Thippur Shivamurthy, and A. Neto, "Wideband, wide-scan planar array of connected slots loaded with artificial dielectric superstrates," *IEEE Trans. Antennas Propag.*, vol. 64, no. 2, pp. 543-553, Feb. 2016.
- J17.** O. Yurduseven, **D. Cavallo**, A. Neto, G. Carluccio, and M. Albanj, "Parametric analysis of extended hemispherical dielectric lenses fed by a broadband connected array of leaky-wave slots," *IET Microw. Antennas Propag.*, vol. 9, no. 7, pp. 611-617, May 2015.
- J18.** W. H. Syed, G. Fiorentino, **D. Cavallo**, M. Spirito, P. M. Sarro, and A. Neto, "Design, fabrication and measurement of 0.3 THz on-chip double-slot antenna enhanced by artificial dielectrics," *IEEE Trans. THz Sci. Tech.*, vol. 5, no. 2, pp. 288-298, Mar. 2015.
- J19.** **D. Cavallo**, W. H. Syed, and A. Neto, "Closed-form analysis of artificial dielectric layers—Part II: Extension to multiple layers and arbitrary illumination," *IEEE Trans. Antennas Propag.*, vol. 62, no. 12, pp. 6265-6273, Dec. 2014.
- J20.** **D. Cavallo**, W. H. Syed, and A. Neto, "Closed-form analysis of artificial dielectric layers—Part I: Properties of a single layer under plane-wave incidence," *IEEE Trans. Antennas Propag.*, vol. 62, no. 12, pp. 6256-6264, Dec. 2014.
- J21.** B. Blázquez, N. Llombart, **D. Cavallo**, A. Freni, and A. Neto, "A rigorous equivalent network for linearly polarized THz absorbers," *IEEE Trans. Antennas Propag.*, vol. 62, no. 10, pp. 5077-5088, Oct. 2014.
- J22.** F. Tokan, N. Turker Tokan, A. Neto, and **D. Cavallo**, "The lateral wave antenna," *IEEE Trans. Antennas Propag.*, vol. 62, no.

6, pp. 2909-2916, Jun. 2014.

- J23. O. Yurduseven, **D. Cavallo**, and A. Neto, "Wideband dielectric lens antenna with stable radiation patterns fed by coherent array of connected leaky slots," *IEEE Trans. Antennas Propag.*, vol. 62, no. 4, pp. 1895-1902, Apr. 2014.
- J24. N. Türker Tokan, A. Neto, F. Tokan, and **D. Cavallo**, "Comparative study on pulse distortion and phase aberration of directive UWB antennas," *IET Microw. Antennas Propag.*, vol. 7, no. 12, pp. 1021-1026, Sep. 2013.
- J25. **D. Cavallo** and A. Neto, "A connected array of slots supporting broadband leaky waves," *IEEE Trans. Antennas Propag.*, vol. 61, no. 4, pp. 1986-1994, Apr. 2013.
- J26. **D. Cavallo**, A. Neto, G. Gerini, A. Micco, and V. Galdi, "A 3 to 5 GHz wideband array of connected dipoles with low cross polarization and wide-scan capability," *IEEE Trans. Antennas Propag.*, vol. 61, no. 3, pp. 1148-1154, Mar. 2013.
- J27. **D. Cavallo**, A. Neto, and G. Gerini, "Analytical description and design of printed dipole arrays for wideband wide-scan applications," *IEEE Trans. Antennas Propag.*, vol. 60, no. 12, pp. 6027-6031, Dec. 2012.
- J28. A. Neto, **D. Cavallo**, and G. Gerini, "Edge-born waves in connected arrays: A finite \times infinite analytical representation," *IEEE Trans. Antennas Propag.*, vol. 59, no. 10, pp. 3646-3657, Oct. 2011.
- J29. **D. Cavallo**, A. Neto, and G. Gerini, "Green's function based equivalent circuits for connected arrays in transmission and in reception," *IEEE Trans. Antennas Propag.*, vol. 59, no. 5, pp. 1535-1545, May 2011.
- J30. **D. Cavallo**, A. Neto, and G. Gerini, "PCB slot based transformers to avoid common-mode resonances in connected arrays of dipoles," *IEEE Trans. Antennas Propag.*, vol. 58, no. 8, pp. 2767-2771, Aug. 2010.
- J31. A. Neto, **D. Cavallo**, G. Gerini, and G. Toso, "Scanning performances of wideband connected arrays in the presence of a backing reflector," *IEEE Trans. Antennas Propag.*, vol. 57, no. 10, pp. 3092-3102, Oct. 2009.

Patents (2)

- P1. M. Spella, W. H. Syed, **D. Cavallo**, M. Huang, and L. van Gemert, "Integrated circuit package," Eur. Patent EP3364457A1, U.S. Patent US20180233465A1, China Patent CN108428693A, 2017.
- P2. A. Neto, **D. Cavallo**, G. Gerini, R. Grooters, and G. Toso, "Array antenna feed structures," Eur. Patent EP2110883A1, U.S. Patent US9865936B2, World Patent WO2009128716A1, Oct. 21, 2009.

Conference publications (127, of which 26 invited)

- C1. M. Hoogelander, S. L. van Berkel, M. Alonso-delPino, M. Spirito, A. Neto, **D. Cavallo**, and N. Llombart, "Diffraction-limited imaging using a silicon integrated array at submillimeter wavelengths," *16th European Conference on Antennas and Propagation*, Madrid, Spain, Mar. 27 - Apr. 1, 2022.
- C2. A. J. van Katwijk, A. Neto, G. Toso, and **D. Cavallo**, "Wideband phased array design for Ku/Ka SatCom applications," *16th European Conference on Antennas and Propagation*, Madrid, Spain, Mar. 27 - Apr. 1, 2022.
- C3. R. Ozzola, J. Geng, N. Llombart, A. Freni, **D. Cavallo**, and A. Neto, "On the use of the volumetric method of moments for the analysis and design of integrated feeds," *16th European Conference on Antennas and Propagation*, Madrid, Spain, Mar. 27 - Apr. 1, 2022.
- C4. C. Coco Martin and **D. Cavallo**, "Wideband flat lenses based on artificial dielectric layers," *16th European Conference on Antennas and Propagation*, Madrid, Spain, Mar. 27 - Apr. 1, 2022. **(Convened Paper)**
- C5. R. Ozzola, Z. Chen, U. Imberg, A. Neto, and **D. Cavallo**, "2-8 GHz connected array for wireless base stations," *16th European Conference on Antennas and Propagation*, Madrid, Spain, Mar. 27 - Apr. 1, 2022.
- C6. A. J. van Katwijk, A. Neto, G. Toso, and **D. Cavallo**, "Dual-pol wide scan connected slot array for Ku- and Ka-band satcom with low cross-polarization," *IEEE International Symposium on Antennas and Propagation*, Singapore, Dec. 4-10, 2021.
- C7. R. Ozzola, Z. Chen, A. Neto, U. Imberg, and **D. Cavallo**, "Connected array design for mobile communications," *IEEE International Symposium on Antennas and Propagation*, Singapore, Dec. 4-10, 2021.
- C8. R. van Schelven, W. Syed, G. Carluccio, K. Doris, A. de Graauw, A. Neto, and **D. Cavallo**, "A 30 GHz slot array with artificial dielectrics to enhance radiation characteristics," *26th International Symposium on Antennas and Propagation (ISAP)*, Taipei, Taiwan, Oct. 19-22, 2021. **(Invited Paper)**
- C9. A. J. van Katwijk, A. Neto, G. Toso, and **D. Cavallo**, "Dual-polarized connected slot array design for satellite communication," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021.
- C10. R. Ozzola, A. Neto, U. Imberg, and **D. Cavallo**, "Design of a wideband wide-scanning dual-polarized phased array for mobile communications," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021.
- C11. R. Ozzola, **D. Cavallo**, A. Freni, N. Llombart, and A. Neto, "The number of independent wireless links on a given volume platform," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021. **(Finalist for Electromagnetics Best Paper award)**
- C12. A. P. Laguna, **D. Cavallo**, J. A. Baselmans, and N. Llombart, "Focused connected array as a wideband beam-steering feed for quasi-optical systems," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021.
- C13. R. van Schelven, M. Spirito, and **D. Cavallo**, "Parallel plate waveguide Doherty power combiner at mm-wave frequencies," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021.

- C14.** R. van Schelven, W. Syed, G. Carluccio, K. Doris, A. de Graauw, A. Neto, and **D. Cavallo**, "Pattern diversity and scan loss reduction for millimeter wave phased array applications," *15th European Conference on Antennas and Propagation*, Düsseldorf, Germany, Mar. 22-26, 2021. **(Convened Paper)**
- C15.** S. L. van Berkel, S. Malotau, C. de Martino, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "System NEP verification of a wideband THz direct detector in CMOS," *45th International Conference on Infrared, Millimeter and Terahertz Waves*, Buffalo, NY, USA, Nov. 8-13, 2020.
- C16.** S. L. van Berkel, S. Malotau, C. de Martino, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Experimental modeling and high-frequency characterization of NEP for a CMOS THz imager," *IEEE International Symposium on Antennas and Propagation*, Montréal, Canada, Jul. 5-10, 2020.
- C17.** R. van Schelven, M. Spirito, and **D. Cavallo**, "Waveguide Doherty combiners for mm-waves," *IEEE International Symposium on Antennas and Propagation*, Montréal, Canada, Jul. 5-10, 2020.
- C18.** A. van Katwijk, A. Neto, G. Toso, and **D. Cavallo**, "Dual-polarized wide scan phased array covering both the Ku- and the Ka-satcom bands," *IEEE International Symposium on Antennas and Propagation*, Montréal, Canada, Jul. 5-10, 2020.
- C19.** A. Pascual Laguna, **D. Cavallo**, J. J. A. Baselmans, and N. Llombart, "Broadband beam-steering with focused connected arrays in quasi-optical systems," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020.
- C20.** C. Yepes, E. Gandini, S. Monni, F. E. van Vliet, A. Neto, and **D. Cavallo**, "Skewed dipole linear array for angular filtering," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020.
- C21.** S. L. van Berkel, E. S. Malotau, C. de Martino, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Experimental validation of system NEP of a single-pixel THz imaging camera in CMOS," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020.
- C22.** R. Ozzola and **D. Cavallo**, "Efficiency analysis in multibeam wideband phased arrays," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020.
- C23.** A. van Katwijk, A. Neto, G. Toso, and **D. Cavallo**, "Design of wideband wide-scanning dual-polarized phased array covering simultaneously both the Ku- and the Ka- satcom bands," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020. **(Convened Paper)**
- C24.** R. van Schelven, M. Spirito, and **D. Cavallo**, "Efficient waveguide power combiners at mm-wave frequencies," *14th European Conference on Antennas and Propagation*, Copenhagen, Denmark, Mar. 15-20, 2020. **(Convened Paper)**
- C25.** C. Yepes, E. Gandini, S. Monni, F. E. van Vliet, A. Neto, and **D. Cavallo**, "An array of tilted dipoles loaded with artificial dielectrics with angular filtering properties," *IEEE International Symposium on Phased Array Systems and Technology*, Waltham, MA, USA, Oct. 15-18, 2019.
- C26.** A. van Katwijk and **D. Cavallo**, "Analysis and design of connected slot arrays with artificial dielectrics," *IEEE International Symposium on Phased Array Systems and Technology*, Waltham, MA, USA, Oct. 15-18, 2019. **(Invited Paper)**
- C27.** C. Yepes, E. Gandini, S. Monni, F. E. van Vliet, A. Neto, and **D. Cavallo**, "Analysis and design of arrays with tilted directive dipole elements," *European Microwave Conference*, Paris, France, Sep. 29 - Oct. 4, 2019.
- C28.** S. L. van Berkel, S. Malotau, B. van den Bogert, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "High resolution passive THz imaging array with polarization reusage in 22nm CMOS," *44th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)*, Paris, France, Sep. 1-6, 2019.
- C29.** C. Yepes, E. Gandini, S. Monni, F. E. van Vliet, A. Neto, and **D. Cavallo**, "Theory and design of an array of skewed stacked dipoles," *USNC-URSI Radio Science Meeting*, Atlanta, Georgia, USA, Jul. 7-12, 2019.
- C30.** R. van Schelven, **D. Cavallo**, and A. Neto, "Transmission line models of planar slot antennas," *IEEE Antennas and Propagation Society International Symposium*, Atlanta, Georgia, USA, Jul. 7-12, 2019. **(Honorable Mention)**
- C31.** S. L. van Berkel, E. S. Malotau, B. van den Bogert, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Dual Polarized THz Imaging FPA in 22nm CMOS," *IEEE Antennas and Propagation Society International Symposium*, Atlanta, Georgia, USA, Jul. 7-12, 2019.
- C32.** S. L. van Berkel, E. S. Malotau, M. Spirito, **D. Cavallo**, A. Neto, and N. Llombart, "Wideband single-pixel THz imager in 28nm CMOS," *IEEE Antennas and Propagation Society International Symposium*, Atlanta, Georgia, USA, Jul. 7-12, 2019.
- C33.** S. L. van Berkel, E. S. Malotau, **D. Cavallo**, M. Spirito, A. Neto, and N. Llombart, "CMOS connected array with polarization reusage for passive THz imaging applications," *13th European Conference on Antennas and Propagation*, Krakow, Poland, Mar. 31 - Apr. 5, 2019.
- C34.** R. van Schelven, **D. Cavallo**, and A. Neto, "Equivalent circuit models of finite slot antennas," *13th European Conference on Antennas and Propagation*, Krakow, Poland, Mar. 31 - Apr. 5, 2019. **(Finalist for Best Student Paper award)**
- C35.** **D. Cavallo**, "Planar wide-scan wideband phased arrays with improved polarization purity," *13th European Conference on Antennas and Propagation*, Krakow, Poland, Mar. 31 - Apr. 5, 2019. **(Convened Paper)**
- C36.** R. van Schelven and **D. Cavallo**, "Closed-form analysis of artificial dielectric layers with non-periodic characteristics," *13th European Conference on Antennas and Propagation*, Krakow, Poland, Mar. 31 - Apr. 5, 2019. **(Convened Paper, Finalist for Electromagnetics and Antenna Theory Best Paper award)**
- C37.** C. Yepes, E. Gandini, F. van Vliet, S. Monni, A. Neto, and **D. Cavallo**, "3D array element design for pattern shaping," *13th European Conference on Antennas and Propagation*, Krakow, Poland, Mar. 31 - Apr. 5, 2019. **(Convened Paper)**
- C38.** C. Yepes, R. van Schelven, E. Gandini, S. Monni, F. E. van Vliet, A. Neto, and **D. Cavallo**, "On the radiation properties of

- skewed stacked dipoles arrays," *39th ESA Antenna Workshop on Multibeam and Reconfigurable Antennas for Space Applications*, Noordwijk, The Netherlands, Oct. 2-5, 2018. **(Invited Paper)**
- C39.** D. Cavallo, W.H. Syed, and A. Neto, "A planar 6-15 GHz connected slot array with very wide scan capability," *39th ESA Antenna Workshop on Multibeam and Reconfigurable Antennas for Space Applications*, Noordwijk, The Netherlands, Oct. 2-5, 2018. **(Invited Paper)**
- C40.** S. L. van Berkel, E. S. Malotau, D. Cavallo, M. Spirito, A. Neto, and N. Llombart, "Optical performance of a wideband 28nm CMOS double bow-tie slot antenna for imaging applications," *43rd International Conference on Infrared, Millimeter and Terahertz Waves*, Nagoya, Japan, Sep. 9-14, 2018.
- C41.** C. Yepes, R. van Schelven, D. Cavallo, E. Gandini, S. Monni, F. E. van Vliet, and A. Neto, "On the radiation properties of array of skewed stacked dipoles," *USNC-URSI Radio Science Meeting*, Boston, Massachusetts, USA, Jul. 8-13, 2018.
- C42.** D. Cavallo, "Analysis of artificial dielectric layers with finite conductivity," *IEEE Antennas and Propagation Society International Symposium*, Boston, Massachusetts, USA, Jul. 8-13, 2018.
- C43.** D. Cavallo, W. H. Syed, and A. Neto, "6-15 GHz wide scanning connected array," *IEEE Antennas and Propagation Society International Symposium*, Boston, Massachusetts, USA, Jul. 8-13, 2018.
- C44.** A. P. Laguna, D. Cavallo, N. Llombart, J. A. Baselmans, and A. Neto, "Focused superconducting connected array for wideband sub-mm spectrometers," *12th European Conference on Antennas and Propagation*, London, U.K., Apr. 9-13, 2018.
- C45.** C. Yepes, R. van Schelven, D. Cavallo, E. Gandini, and A. Neto, "Radiation characteristics of skewed loaded dipole arrays," *12th European Conference on Antennas and Propagation*, London, U.K., Apr. 9-13, 2018.
- C46.** S. L. van Berkel, E. S. Malotau, D. Cavallo, M. Spirito, A. Neto, and N. Llombart, "Wideband single pixel radiometer in 28 nm CMOS technology for low-cost imaging applications," *12th European Conference on Antennas and Propagation*, London, U.K., Apr. 9-13, 2018. **(Finalist for Antenna Design and Applications Best Paper award)**
- C47.** D. Cavallo, "Analytical equivalent models of artificial dielectric layers with arbitrary inter-layer shifts," *12th European Conference on Antennas and Propagation*, London, UK, Apr. 9-13, 2018. **(Convened Paper)**
- C48.** C. Yepes, D. Cavallo, A. Neto, E. Gandini, S. Monni, and F. van Vliet, "Frequency selective surface combined with wide-scanning connected array of dipoles," presented at *15 Years of the Netherlands National Radar Platform*, Den Helder, the Netherlands, Nov. 8, 2017.
- C49.** C. Yepes, D. Cavallo, A. Neto, E. Gandini, S. Monni, and F. E. van Vliet, "Spatial filtering frequency selective surface for wide-angle scanning phased arrays," *European Microwave Week 2017*, Nuremberg, Germany, Oct. 8-13, 2017.
- C50.** S. L. van Berkel, E.S. Malotau, D. Cavallo, M. Spirito, A. Neto, and N. Llombart, "Wideband single pixel radiometer in CMOS," *42nd International Conference on Infrared, Millimeter and Terahertz Waves*, Cancún, México, Aug. 27 - Sep. 1, 2017.
- C51.** C. Yepes, D. Cavallo, A. Neto, E. Gandini, S. Monni, and F. E. van Vliet, "Frequency selective surface for spatial filtering of wide-angle scanning phased arrays," *IEEE Antennas and Propagation Society International Symposium*, San Diego, California, USA, Jul. 9-14, 2017. **(special session)**
- C52.** D. Cavallo, W. H. Syed, and A. Neto, "A 7- to 15-GHz Wide-Scan Dual-Polarized Array of Connected Slots with Artificial Dielectrics," *USNC-URSI Radio Science Meeting*, San Diego, California, USA, Jul. 9-14, 2017.
- C53.** D. Cavallo and C. Felita, "Analytical models for artificial dielectrics with non-aligned layers," *IEEE Antennas and Propagation Society International Symposium*, San Diego, California, USA, Jul. 9-14, 2017.
- C54.** Z. Hu, M. Alonso-delPino, D. Cavallo, H. Thippur-Shivamurthy, and M. Spirito, "Integrated waveguide power combiners with artificial dielectrics for mm-wave systems," *IEEE MTT International Microwave Symposium*, Honolulu, Hawaii, Jun. 4-9, 2017.
- C55.** D. Cavallo and C. Felita, "Analysis of artificial dielectrics composed of non-aligned layers," *11th European Conference on Antennas and Propagation*, Paris, France, Mar. 19-24, 2017. **(Best Paper Award in Electromagnetics and Antenna Theory)**
- C56.** C. Yepes, D. Cavallo, A. Neto, E. Gandini, S. Monni, and F. E. van Vliet, "Co-design of frequency selective surface and antenna array with low angular dependence," *11th European Conference on Antennas and Propagation*, Paris, France, Mar. 19-24, 2017.
- C57.** D. Cavallo, W. H. Syed, and A. Neto, "Artificial-dielectric enabled antennas for high-frequency radiation from integrated circuits," *11th European Conference on Antennas and Propagation*, Paris, France, Mar. 19-24, 2017. **(Convened Paper)**
- C58.** D. Cavallo, W. H. Syed, and A. Neto, "Planar wide-scan wideband arrays based on connected slots and artificial dielectrics," *11th European Conference on Antennas and Propagation*, Paris, France, Mar. 19-24, 2017. **(Convened Paper)**
- C59.** C. J. Yepes, D. Cavallo, A. Neto, S. Monni, and F. van Vliet, "Frequency selective surface design for improved antenna array out-of-band rejection," *IEEE International Symposium on Phased Array Systems and Technology*, Waltham, MA, USA, Oct. 18-21, 2016.
- C60.** D. Cavallo, W. H. Syed, and A. Neto, "A 5:1 Connected Slot Array Loaded with Artificial Dielectric Layers," *IEEE International Symposium on Phased Array Systems and Technology*, Waltham, MA, USA, Oct. 18-21, 2016. **(Invited Paper)**
- C61.** D. Cavallo, W. H. Syed, and A. Neto, "Efficiency and bandwidth enhancement of on-chip antennas by using connected arrays and artificial dielectrics," *41st International Conference on Infrared, Millimeter and Terahertz Waves*, Copenhagen, Denmark, Sep. 25-30, 2016.
- C62.** D. Cavallo, W. H. Syed, and A. Neto, "Comparison of the edge effects in finite connected array of dipoles and slots in

- relation to the load impedance," *IEEE Antennas and Propagation Society International Symposium*, Puerto Rico, Jun. 26-Jul. 1, 2016.
- C63. M. Alonso-delPino, H. Thippur Shivamurthy, **D. Cavallo**, L. Galatro, and M. Spirito, "BiCMOS integrated waveguide with artificial dielectric at submillimeter wave frequencies," *IEEE MTT International Microwave Symposium*, San Francisco, CA, USA, May 22-27, 2016.
- C64. **D. Cavallo**, A. Pascual Laguna, and W. H. Syed, "Wideband and high-efficiency radiation from chip with artificial dielectric superstrates," *10th European Conference on Antennas and Propagation*, Davos, Switzerland, Apr. 11-15, 2016.
- C65. W. H. Syed, **D. Cavallo**, and A. Neto, "Truncation effects in finite wideband connected arrays loaded with artificial dielectrics," *10th European Conference on Antennas and Propagation*, Davos, Switzerland, Apr. 11-15, 2016.
- C66. S. van Berkel, **D. Cavallo**, N. Llombart, A. Neto, "THz silicon-integrated CAMera for low-cost imaging applications (TiCAM)," *Joint Symposium URSI-Benelux, NARF, and IEEE AP-S Meeting on Smart Antennas and Propagation*, Enschede, The Netherlands, Dec. 2015.
- C67. W. H. Syed, **D. Cavallo**, and A. Neto, "Applications of artificial dielectric layers for integrated antennas," *International Symposium on Antennas and Propagation*, Hobart, Tasmania, Australia, Nov. 9-12, 2015. **(Invited Paper)**
- C68. W. H. Syed, **D. Cavallo**, H. Thippur-Shivamurthy, and A. Neto, "A planar wideband wide-scan connected array loaded with artificial dielectric layers," *36th ESA Antenna Workshop on Antennas and RF Systems for Space Science*, Noordwijk, Netherlands, Oct. 6-9, 2015.
- C69. W. H. Syed, G. Fiorentino, **D. Cavallo**, P. M. Sarro, A. Neto, and I. E. Lager, "Performance enhancement of 300 GHz on-chip double slot antenna by means of artificial dielectrics," *45th European Microwave Conference*, Paris, France, Sep. 6-11, 2015.
- C70. M. Alonso-delPino, **D. Cavallo**, H. Thippur Shivamurthy, H. Gao, and M. Spirito, "BiCMOS integrated waveguide power combiner at submillimeter-wave frequencies," *40th International Conference on Infrared, Millimeter, and Terahertz Waves*, Honk Kong, Aug. 23-28 2015.
- C71. **D. Cavallo**, W. H. Syed, H. Thippur Shivamurthy, and A. Neto, "A planar wideband wide-scan phased array: connected array loaded with artificial dielectric layers," *IEEE Antennas and Propagation Society International Symposium*, Vancouver, Canada, Jul. 19-25, 2015.
- C72. **D. Cavallo**, W. H. Syed, and A. Neto, "Closed-form solutions for the analysis of artificial dielectric layers under generic field incidence," *IEEE Antennas and Propagation Society International Symposium*, Vancouver, Canada, Jul. 19-25, 2015. **(Invited Paper)**
- C73. **D. Cavallo** and A. Neto, "Connected arrays from microwave to THz frequencies in ten years," *IEEE Antennas and Propagation Society International Symposium*, Vancouver, Canada, Jul. 19-25, 2015. **(Invited Paper)**
- C74. **D. Cavallo**, A. Visweswaran, M. Spirito, J. R. Long, N. Llombart, and A. Neto, "Antenna design for a 1 THz source in SiGe-BiCMOS technology," *IEEE Antennas and Propagation Society International Symposium*, Vancouver, Canada, Jul. 19-25, 2015.
- C75. M. Perenzoni and **D. Cavallo**, "Design of an efficient 900 GHz antenna in standard CMOS technology for imaging arrays," *9th European Conference on Antennas and Propagation*, Lisbon, Portugal, Apr. 12-17, 2015.
- C76. W. H. Syed, G. Fiorentino, **D. Cavallo**, P. M. Sarro, and A. Neto, "On-chip double slot antenna at 300 GHz enhanced by artificial dielectrics," *9th European Conference on Antennas and Propagation*, Lisbon, Portugal, Apr. 12-17, 2015. **(Second Best Student Paper)**
- C77. W. H. Syed, **D. Cavallo**, H. Thippur Shivamurthy, and A. Neto, "Design of wideband, wide-scan planar arrays by combining connected arrays and artificial dielectrics," *9th European Conference on Antennas and Propagation*, Lisbon, Portugal, Apr. 12-17, 2015.
- C78. **D. Cavallo**, A. Visweswaran, N. Llombart, M. Spirito, A. Neto, and J. Long, "High-efficiency on-chip antenna array for terahertz power source," *9th European Conference on Antennas and Propagation*, Lisbon, Portugal, Apr. 12-17, 2015.
- C79. W. H. Syed, G. Fiorentino, **D. Cavallo**, M. Spirito, A. Neto, and P. M. Sarro, "Enhancement of front to back ratio of on chip antenna by artificial dielectrics at 300 GHz," *39th International Conference on Infrared, Millimeter, and Terahertz Waves*, Tucson, AZ, Sep. 14-19 2014.
- C80. **D. Cavallo**, W. H. Syed, and A. Neto, "Closed-form analysis of the decoupling properties of artificial dielectric layers," *IEEE Antennas and Propagation Society International Symposium*, Memphis, TN, USA, Jul. 6-12, 2014.
- C81. W. H. Syed, **D. Cavallo**, A. Neto, and P. van Zeijl, "Design of connected array loaded with artificial dielectric at 60 GHz," *IEEE Antennas and Propagation Society International Symposium*, Memphis, TN, USA, Jul. 6-12, 2014.
- C82. W. H. Syed, G. Fiorentino, **D. Cavallo**, M. Spirito, A. Neto, and P. M. Sarro, "Front-to-back ratio enhancement of on-chip antenna using artificial dielectrics at 300 GHz," *IEEE Antennas and Propagation Society International Symposium*, Memphis, TN, USA, Jul. 6-12, 2014.
- C83. O. Yurduseven, **D. Cavallo**, and A. Neto, "Asymptotic evaluation of the radiation from small dielectric lenses fed by a single leaky-wave slot," *IEEE Antennas and Propagation Society International Symposium*, Memphis, TN, USA, Jul. 6-12, 2014.
- C84. D. Dancila, **D. Cavallo**, I. E. Lager, A. Neto, and A. Rydberg, "Analytical model for patch-slot elements of reconfigurable reflectarray," *6th COST Working Group Meeting & Technical Workshop*, Bucharest, Romania, May 26-28, 2014.
- C85. **D. Cavallo**, A. Visweswaran, N. Llombart, M. Spirito, W. H. Syed, A. Neto, and J. Long, "Design of wideband and high-efficiency antenna array on chip at 1.1 terahertz," *8th European Conference on Antennas and Propagation*, The Hague,

- Netherlands, Apr. 6-11, 2014. **(Convened Paper)**
- C86.** D. Cavallo, W. H. Syed, and A. Neto, "Closed-form expressions for the analysis of finite-height artificial dielectric layers," *8th European Conference on Antennas and Propagation*, The Hague, Netherlands, Apr. 6-11, 2014.
- C87.** O. Yurduseven, A. Neto, and D. Cavallo, "Investigation of the radiation characteristics of the leaky-lens antenna for small dielectric lenses," *8th European Conference on Antennas and Propagation*, The Hague, Netherlands, Apr. 6-11, 2014.
- C88.** W. H. Syed, A. Neto, D. Cavallo, and P. van Zeijl, "Artificial dielectric based connected array of slots at 60 GHz," *8th European Conference on Antennas and Propagation*, The Hague, Netherlands, Apr. 6-11, 2014.
- C89.** W. H. Syed, D. Cavallo, and A. Neto, "An analytical approach to describe plane-wave propagation in finite artificial dielectric layers," *IEEE Antennas and Propagation Society International Symposium*, Orlando, FL, USA, Jul. 7-13, 2013.
- C90.** D. Cavallo, O. Yurduseven, A. Neto, G. Carluccio, and M. Albani, "Extended hemispherical lens fed by wideband arrays of connected leaky-wave slots," *IEEE Antennas and Propagation Society International Symposium*, Orlando, FL, USA, Jul. 7-13, 2013.
- C91.** W. H. Syed, D. Cavallo, and A. Neto, "Artificial Dielectric Layers as Surface-Wave-Less Antenna Substrate," presented at the *Annual Netherlands Antenna Research Framework (NARF) Workshop*, Delft, Netherlands, May 31, 2013. **(Best Poster Award)**
- C92.** D. Cavallo, O. Yurduseven, A. Neto, G. Carluccio, and M. Albani, "Connected arrays of slots as feed of a dielectric lens," presented at the *Annual Netherlands Antenna Research Framework (NARF) Workshop*, May 31, 2013.
- C93.** D. Cavallo, O. Yurduseven, A. Neto, G. Carluccio, and M. Albani, "Connected arrays of slots as feed of a dielectric lens: Analysis, design and experimental validation," *7th European Conference on Antennas and Propagation*, Gothenburg, Sweden, Apr. 8-12, 2013.
- C94.** D. Cavallo, G. Gerini, R. Bolt, D. Deurloo, R. Grooters, A. Neto, G. Toso, and R. Midthassel, "Ku-band dual-polarized array of connected dipoles for SATCOM terminals: Theory and hardware validation," *7th European Conference on Antennas and Propagation*, Gothenburg, Sweden, Apr. 8-12, 2013. **(Convened Paper)**
- C95.** O. Yurduseven, D. Cavallo, and A. Neto, "Dielectric lens fed by coherent connected-slot array as wideband reflector feed," *7th European Conference on Antennas and Propagation*, Gothenburg, Sweden, Apr. 8-12, 2013. **(Best Student Paper Award)**
- C96.** W. H. Syed, D. Cavallo, and A. Neto, "Artificial dielectric layers for efficient feeding of lens antennas: Rigorous analysis and experimental validation," *7th European Conference on Antennas and Propagation*, Gothenburg, Sweden, Apr. 8-12, 2013. **(Finalist For Best Student Paper)**
- C97.** L. Cifola, D. Cavallo, G. Gerini, and A. Morini, "Integrated filtering in a planar array of connected dipoles including a common-mode rejection module," *European Microwave Week 2012*, Amsterdam, Netherlands, Oct. 28 - Nov. 2, 2012.
- C98.** D. Cavallo, A. Neto, and G. Gerini, "A Ku-band dual-polarization connected array of dipoles with wide-scan capability for in-flight entertainment," *IEEE Antennas and Propagation Society International Symposium*, Chicago, IL, USA, Jul. 8-14, 2012. **(Invited Paper)**
- C99.** A. Neto and D. Cavallo, "Non dispersive antenna array architectures for THz sensing systems: connected leaky wave slots," *IEEE Antennas and Propagation Society International Symposium*, Chicago, IL, USA, Jul. 8-14, 2012. **(Invited Paper)**
- C100.** L. Cifola, D. Cavallo, G. Gerini, and A. Morini, "Rat-race design for connected dipole array feed," *IEEE Antennas and Propagation Society International Symposium*, Chicago, IL, USA, Jul. 8-14, 2012.
- C101.** D. Cavallo, A. Neto, and G. Gerini, "A wideband (3 to 5 GHz) wide-scan connected array of dipoles with low cross polarization," *6th European Conference on Antennas and Propagation*, Prague, Czech Republic, Mar. 26-30, 2012.
- C102.** L. Cifola, D. Cavallo, G. Gerini, A. Morini, and G. Venanzoni, "Common-mode rejection in a connected array of dipoles with inherent frequency selectivity properties," *6th European Conference on Antennas and Propagation*, Prague, Czech Republic, Mar. 26-30, 2012.
- C103.** D. Cavallo, G. Gerini, and A. Neto, "Connected array antennas," *2011 Research Retreat Centre for Wireless Technology Eindhoven (CWTe)*, Eindhoven, The Netherlands, Oct. 18, 2011.
- C104.** A. Neto, D. Cavallo, and G. Gerini, "Truncation effects in connected arrays: Analytical models to describe the edge-induced wave phenomena," *IEEE Antennas and Propagation Society International Symposium*, Spokane, Washington, USA, Jul. 3-8, 2011.
- C105.** D. Cavallo, A. Neto, and G. Gerini, "Theoretical analysis and design of connected arrays of dipoles with inter-element capacitance," *USNC/URSI National Radio Science Meeting*, Spokane, Washington, USA, Jul. 3-8, 2011.
- C106.** D. Cavallo, S. Savoia, G. Gerini, A. Neto, and V. Galdi, "Design of a low profile printed array of loaded dipoles with inherent frequency selectivity properties," *5th European Conference on Antennas and Propagation*, Rome, Italy, Apr. 11-15, 2011.
- C107.** A. Neto, D. Cavallo, and G. Gerini, "Finiteness effects in wideband connected arrays: Analytical models to highlight the effect of the loading impedances," *5th European Conference on Antennas and Propagation*, Rome, Italy, Apr. 11-15, 2011. **(Convened Paper)**
- C108.** D. Cavallo, A. Neto, G. Gerini, and F. Smits, "Connected arrays of dipoles for broad band, wide angle scanning, dual polarized applications: a novel solution to the common mode problem," *IEEE International Symposium on Phased Array Systems & Technology*, Boston, MA, Oct. 12-15, 2010.
- C109.** D. Cavallo, A. Neto, and G. Gerini, "Rigorous equivalent circuits for connected arrays and their exploitation in antenna matching characterization," *32th ESA Antenna Workshop on Antennas for Space Applications*, ESTEC, Noordwijk, The Netherlands, Oct. 5-8, 2010.

- C110.** A. Neto, **D. Cavallo**, and G. Gerini, "Finiteness of connected arrays: how to control guided edge waves with proper loading impedances," *32th ESA Antenna Workshop on Antennas for Space Applications*, ESTEC, Noordwijk, The Netherlands, Oct. 5-8, 2010.
- C111.** A. Neto, **D. Cavallo**, and G. Gerini, "Performance of wide band connected arrays in scanning: the equivalent circuit and its validation through a dual-band prototype demonstrator," *IEEE Antennas and Propagation Society International Symposium*, Toronto, Ontario, Canada, Jul. 11-17, 2010.
- C112.** **D. Cavallo**, A. Neto, and G. Gerini, "A 10.5-14.5 GHz wide-scanning connected array of dipoles with common-mode rejection loops to ensure polarization purity," *IEEE Antennas and Propagation Society International Symposium*, Toronto, Ontario, Canada, Jul. 11-17, 2010.
- C113.** **D. Cavallo**, A. Neto, G. Gerini, and A. Micco, "A novel printed-circuit-board feeding structure for common-mode rejection in wide-scanning connected arrays of dipoles," *4th European Conference on Antennas and Propagation*, Barcelona, Spain, Apr. 12-16, 2010.
- C114.** **D. Cavallo**, A. Neto, G. Gerini, and D. Morello, "A dual-band planar array of connected dipoles: experimental validation based on bistatic RCS measurements," *4th European Conference on Antennas and Propagation*, Barcelona, Spain, Apr. 12-16, 2010. **(Convened Paper)**
- C115.** G. Gerini, **D. Cavallo**, A. Neto, and F. van den Bogaart, "Connected arrays of dipoles for telecom and radar applications: the solution for the common mode problem," *Wide Band Sparse Element Array Antennas (WiSE) End Symposium*, Wassenaar, Netherlands, Mar. 4, 2010. **(Invited Paper)**
- C116.** **D. Cavallo**, A. Neto, and G. Gerini, "Analysis of common-mode resonances in arrays of connected dipoles and possible solutions," *6th European Radar Conference*, Rome, Italy, Sep. 30 – Oct. 2, 2009, pp. 441-444.
- C117.** **D. Cavallo**, A. Neto, and G. Gerini, "Common mode resonances in UWB connected arrays of dipoles: measurements from the demonstrator and exit strategy," *11th Edition of the International Conference on Electromagnetics in Advanced Applications*, Turin, Italy, Sep. 14-18, 2009, pp. 435-438. **(Invited Paper)**
- C118.** **D. Cavallo**, A. Neto, G. Gerini, and G. Toso, "A wide-band dual-pol array of printed dipoles," *IEEE Antennas and Propagation Society International Symposium*, Charleston, SC, Jun. 1-5, 2009, p. IF114.1.
- C119.** **D. Cavallo**, A. Neto, G. Gerini, and G. Toso, "A wide-band dual-polarized array of connected dipoles," *5th ESA Workshop on Millimetre Wave Technology and Applications and 31st ESA Antenna Workshop*, Noordwijk, The Netherlands, May 18-20, 2009, pp. 209-216.
- C120.** A. Neto, **D. Cavallo**, and G. Gerini, "Common mode, differential mode and baluns: the secrets," *5th ESA Workshop on Millimetre Wave Technology and Applications and 31st ESA Antenna Workshop*, Noordwijk, The Netherlands, May 18-20, 2009, pp. 718-723.
- C121.** **D. Cavallo**, A. Neto, G. Gerini, and G. Toso, "Scanning performances of wide band connected arrays of slots and dipoles," *3rd European Conference on Antennas and Propagation*, Berlin, Germany, Mar. 23-27, 2009, pp. 1222-1224.
- C122.** A. Neto, **D. Cavallo**, and G. Gerini, "UWB, wide angle scanning, planar arrays based on connected dipoles concept," *Sensors & Electronics Technology Panel Specialist Meeting (SET-120) on Ultra Wideband Radar Systems*, Toulouse, France, Oct. 27-28, 2008.
- C123.** A. Neto, **D. Cavallo**, G. Gerini, G. Toso, and F. E. van Vliet, "A comparison between the green's functions of connected slots and dipoles in the presence of a backing reflector," *38th European Microwave Conference*, Amsterdam, The Netherlands, Oct. 27-31, 2008, pp. 508-510.
- C124.** **D. Cavallo**, A. Neto, G. Gerini, and G. Toso, "On the potentials of connected array technology for wide band, wide scanning, dual polarized applications," *IEEE Antennas and Propagation Society International Symposium*, San Diego, CA, Jul. 5-12, 2008.
- C125.** **D. Cavallo**, A. Neto, and G. Gerini, "Toward the design of a wide-scan, wide-band, low-cross-pol printed array," *URSI Forum 2008*, Brussels, Belgium, May 30, 2008.
- C126.** **D. Cavallo**, A. Neto, G. Gerini, and G. Toso, "On the potentials of connected slots and dipoles in the presence of a backing reflector," *30th ESA Workshop on Antennas for Earth Observation, Science, Telecommunication and Navigation Space Missions*, Noordwijk, The Netherlands, May 27-30, 2008. **(Best Innovative Paper Prize)**
- C127.** **D. Cavallo**, A. Neto, and G. Gerini, "Connected array antennas for ultrawide band radar applications," *IEEE Conference on Microwave, Communication, Antennas and Electronic Systems (COMCAS)*, Tel Aviv, Israel, May 13-14, 2008, pp. 1-10.

Invited Seminars (4)

- IS1.** **D. Cavallo**, "Wideband Antenna Concepts for Millimeter-Wave Wireless Communication," HUAWEI Antenna Technology Summit, Munich, Germany, Oct. 2018.
- IS2.** **D. Cavallo**, "High-Frequency Antenna Solutions for Present and Future Radar and Communication Systems," HUAWEI Antenna Technology Summit, Munich, Germany, Oct. 2017.
- IS3.** **D. Cavallo**, "Artificial Dielectric Layers: Theory and Applications to On-Chip Antennas and Wideband Phased Arrays," Université de Rennes 1, IETR (Institut d'Electronique et de Télécommunications de Rennes), Rennes, France, Jun. 2017.
- IS4.** **D. Cavallo**, "Design Concepts for High-Efficiency On-Chip Antennas," Chalmers University of technology, Gothenburg, Sweden, Apr. 2015.