

# CURRICULUM VITAE

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EVA RAJO IGLESIAS



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## Personal Information



Academic Current Position: Professor  
Department: Dpt. Signal Theory and Communications  
University: University Carlos III of Madrid

## 1. University Degrees

Degree received: Ph.D. Telecommunication Engineer Degree  
University: University Carlos III of Madrid  
Date: 6-09-2002  
Thesis: Contribution to the Analysis and Modelling of Stacked Patch Antennas  
Supervisor: Carlos Martín Pascual  
Grade: *Sobresaliente "Cum Laude"* with unanimity of the committee  
Award to the Best PhD Thesis in Telecommunication Technologies PhD Program

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Degree received: Telecommunication Engineer  
University: University of Vigo  
Date: 20-10-1996  
Master Thesis: Contribution to the study of the variation of the electromagnetic characteristics of the materials with microwaves  
Supervisor: Anselmo Seoane Pampín  
Grade: A with Honors

## 2. Academic Positions

- 11/1997 - 09/2001: Teacher Assistant in *Tecnologías de las Comunicaciones* Department (Universidad Carlos III de Madrid).
- 10/2001 - 09/2002: Teacher Assistant in *Tecnologías de las Comunicaciones* Department (Universidad Politécnica de Cartagena).
- 10/2002-09/2004: Visiting Professor in *Teoría de la Señal y Comunicaciones* Department (Universidad Carlos III de Madrid).
- 10/2004-11/2018: Associate Professor in *Teoría de la Señal y Comunicaciones* Department (Universidad Carlos III de Madrid) (life position since February 2008).
- 12/2018-present: Full Professor in *Teoría de la Señal y Comunicaciones* Department (Universidad Carlos III de Madrid).

## Publications in Refereed Journals

1. O. Quevedo-Teruel, G. Valerio, Z. Sipus and **E. Rajo-Iglesias**, "Periodic Structures With Higher Symmetries: Their Applications in Electromagnetic Devices," in IEEE Microwave Magazine, vol. 21, no. 11, pp. 36-49, Nov. 2020, doi: 10.1109/MMM.2020.3014987.
2. C. Sanchez-Cabello, L. F. Herrán, A. U. Zaman, **Rajo-Iglesias, E.**, "Ka band microstrip fed slot array antenna with PMC packaging," in IET Microwaves, Antennas & Propagation, 2020, doi: 10.1049/iet-map.2020.0565
3. M. Ng Mou Kehn, Chih-Kai Hsieh and **Rajo-Iglesias, E.**, "Array of Horns Fed by a Transverse Slotted Groove Gap Waveguide at 28 GHz". Sensors 2020, 20(18), 5311.
4. Vazquez-Roy, J.L., **Rajo-Iglesias, E.**, Ulisse, G. et al. Design and Realization of a Band Pass Filter at D-band Using Gap Waveguide Technology. J Infrared Milli Terahz Waves (2020). <https://doi.org/10.1007/s10762-020-00729-8>.
5. F. Pizarro, C. Sánchez-Cabello, J.-L. Vazquez-Roy, **E. Rajo-Iglesias**, "Considerations of impedance sensitivity and losses in designing inverted microstrip gap waveguides", AEU – International Journal of Electronics and Communications, Volume 124, 2020, 153353, ISSN 1434-8411, <https://doi.org/10.1016/j.aeue.2020.153353>
6. Stuardo, P., Pizarro, F., **Rajo-Iglesias, E.** (2020). "3D-Printed Sievenpiper Metasurface Using Conductive Filaments". Materials (Basel, Switzerland), 13(11), 2614. <https://doi.org/10.3390/ma13112614>.
7. Poyanco, J.-M.; Pizarro, F.; **Rajo-Iglesias, E.** "3D-Printing for Transformation Optics in Electromagnetic High-Frequency Lens Applications". Materials 2020, 13, 2700.
8. F. Pizarro, D. Ramírez-Gil, A. Algaba-Brazález, L. F. Herrán-Ontanón, **E. Rajo-Iglesias**, "Comparison study of 44 Butler matrices in microstrip technologies for Ka-band", AEU International Journal of Electronics and Communications, Volume 122, 2020, 153248, ISSN 1434-8411, <https://doi.org/10.1016/j.aeue.2020.153248>
9. N. Memeletzoglou and **E. Rajo-Iglesias**, "Holey metasurface prism for the reduction of the dispersion of gap waveguide leaky-wave antennas," in IEEE Antennas and Wireless Propagation Letters. doi: 10.1109/LAWP.2019.2943812
10. F. Pizarro, R. Salazar, **E. Rajo-Iglesias**, M. Rodríguez, S. Fingerhuth and G. Hermosilla, "Parametric Study of 3D Additive Printing Parameters Using Conductive Filaments on Microwave Topologies," in IEEE Access, vol. 7, pp. 106814-106823, 2019. doi: 10.1109/ACCESS.2019.2932912
11. O. Quevedo-Teruel, H. Chen, A. Diaz-Rubio, G. Minatti, E. Martini, S. Maci, G. Gok, A. Grbic, G. Eleftheriades, M. Chen, N. Zheludev, N. Papasimakis, S. Choudhury, Zh. A. Kudyshev, S. Saha, H. Reddy, A. Boltasseva, V. Shalaev, A. Kildishev, D. Sievenpiper, C. Caloz, A. Alu, Q. He, L. Zhou, **E. Rajo-Iglesias**, Z. Sipus, G. Valerio, F. Mesa, Francisco, R. Rodríguez-Berral, F. Medina, V. Asadchy, S. Tretyakov, C. Craeye, *Roadmap on metasurfaces*, Journal of Optics, 2019.

12. Q. Liao, **E. Rajo-Iglesias** and O. Quevedo-Teruel, *Ka-band Fully Metallic TE<sub>40</sub> Slot Array Antenna with Glide-symmetric Gap Waveguide Technology*, in IEEE Transactions on Antennas and Propagation vol. 67, no. 10, pp. 6410-6418 Oct. 2019. doi: 10.1109/TAP.2019.2922829
13. J. L. Vazquez-Roy, A. Tamayo-Domínguez, **E. Rajo-Iglesias** and M. Sierra-Castañer, *Radial Line Slot Antenna Design with Groove Gap Waveguide Feed for Monopulse Radar Systems*, vol. 67, no. 10, pp. 6317-6324, Oct. 2019. in IEEE Transactions on Antennas and Propagation. doi: 10.1109/TAP.2019.2922742
14. N. Memeletzoglou, C. Sanchez-Cabello, F. Pizarro-Torres, **E. Rajo-Iglesias**, *Analysis of Periodic Structures Made of Pins Inside a Parallel Plate Waveguide*, Symmetry 2019, 11(4), 582.
15. E. Crespo-Bardera, M. Rodríguez, M. Sánchez-Fernández, **E. Rajo-Iglesias**, R. Feick and R. A. Valenzuela, *Empirical Rates Characterization of Wearable Multi-Antenna Terminals for First-Responders*, in IEEE Access, vol. 7, pp. 6990-7000, 2019.
16. L. Wang, J. L. Gómez-Tornero, **E. Rajo-Iglesias** and O. Quevedo-Teruel, *Low-dispersive Leaky-wave Antenna Integrated in Groove Gap Waveguide Technology*, in IEEE Transactions on Antennas and Propagation, vol. 66, no. 11, pp. 5727-5736, Nov. 2018.
17. **E. Rajo-Iglesias**, M. Ferrando-Rocher, A. U. Zaman, *Gap Waveguide Technology for Millimeter Wave Antenna Systems*, in IEEE Communications Magazine, vol. 56, no. 7, pp. 14-20, July 2018.
18. **E. Rajo-Iglesias**, M. Ebrahimpouri and O. Quevedo-Teruel, *Wideband Phase Shifter in Groove Gap Waveguide Technology Implemented With Glide-Symmetric Holey EBG*, in IEEE Microwave and Wireless Components Letters, vol. 28, no. 6, pp. 476-478, June 2018.
19. D. Blanco and **E. Rajo-Iglesias**, *Wearable Fabry-Pérot Antenna*, IEEE Antennas and Wireless Propagation Letters Vol. 17, pp. 106-109, 2018.
20. M. Ebrahimpouri, **E. Rajo-Iglesias**, Z. Sipus and O. Quevedo-Teruel, *Cost-Effective Gap Waveguide Technology Based on Glide-Symmetric Holey EBG Structures*, IEEE Transactions on Microwave Theory and Techniques Vol. 66, pp. 927-934, February 2018.
21. M. Ebrahimpouri, O. Quevedo-Teruel and **E. Rajo-Iglesias**, *Design Guidelines for Gap Waveguide Technology Based on Glide-Symmetric Holey Structures*, in IEEE Microwave and Wireless Components Letters, vol. 27, no. 6, pp. 542-544, June 2017.
22. M. Sanchez-Fernandez, A. Tulino, **E. Rajo-Iglesias**, J. Llorca and A. G. Armada, *Blended Antenna Wearables for an Unconstrained Mobile Experience*, in IEEE Communications Magazine, vol. 55, no. 4, pp. 160-168, April 2017.
23. D. Blanco, **E. Rajo-Iglesias**, A. Montesano Benito and N. Llombart, *Leaky-Wave Thinned Phased Array in PCB Technology for Telecommunication Applications*, in



- IEEE Transactions on Antennas and Propagation, vol. 64, no. 10, pp. 4288-4296, Oct. 2016.
24. M. Vukomanovic, J. L. Vazquez-Roy, O. Quevedo-Teruel, **E. Rajo-Iglesias** and Z. Sipus, *Gap Waveguide Leaky-Wave Antenna*, in IEEE Transactions on Antennas and Propagation, vol. 64, no. 5, pp. 2055-2060, May 2016.
  25. Brazalez, A.A.; **Rajo-Iglesias, E.**; Vazquez-Roy, J.-L.; Vosoogh, A.; Kildal, P.-S., *Design and Validation of Microstrip Gap Waveguides and Their Transitions to Rectangular Waveguide, for Millimeter-Wave Applications*, IEEE Transactions on Microwave Theory and Techniques , vol.63, no.12, pp.4035-4050, Dec. 2015.
  26. Blanco, D.; **Rajo-Iglesias, E.**; Maci, S.; Llombart, N., *Directivity Enhancement and Spurious Radiation Suppression in Leaky-Wave Antennas Using Inductive Grid Metasurfaces*, , IEEE Transactions on Antennas and Propagation, vol.63, no.3, pp.891-900, March 2015
  27. **Rajo-Iglesias, E.**; Gallego-Gallego, I.; Inclan-Sanchez, L.; Quevedo-Teruel, O., *Textile Soft Surface for Back Radiation Reduction in Bent Wearable Antennas*, IEEE Trans. on Antennas and Propagation, vol.62, no.7, pp.3873-3878, July 2014
  28. Pablo-Gonzalez, M.L.; Sanchez-Fernandez, M.; **Rajo-Iglesias, E.**, *Combination of the Three Types of Diversity to Design High-Capacity Compact MIMO Terminals*, IEEE Antennas and Wireless Propagation Letters, vol.13, no., pp.1309-1312, 2014
  29. Pucci, E.; **Rajo-Iglesias, E.**; Vazquez-Roy, J.-L.; Kildal, P.-S., *Planar Dual-Mode Horn Array With Corporate-Feed Network in Inverted Microstrip Gap Waveguide*, IEEE Trans. on Antennas and Propagation, vol.62, no.7, pp.3534-3542, July 2014
  30. Blanco, D.; Gomez-Tornero, J.L.; **Rajo-Iglesias, E.**; Llombart, N., *Radially Polarized Annular-Slot Leaky-Wave Antenna for Three-Dimensional Near-Field Microwave Focusing*, Antennas and Wireless Propagation Letters, IEEE , vol.13, no., pp.583-586, 2014
  31. Blanco, D.; Llombart, N.; **Rajo-Iglesias, E.**, *On the Use of Leaky Wave Phased Arrays for the Reduction of the Grating Lobe Level*, Antennas and Propagation, IEEE Transactions on , vol.62, no.4, pp.1789,1795, April 2014
  32. O. Quevedo-Teruel, L. Inclan-Sanchez, J.-L. Vazquez-Roy, **E. Rajo-Iglesias**, *Compact Reconfigurable Planar EBGs Based on Short-Circuited Hairpin Resonators*, IEEE Microwave and Wireless Components Letters , vol.23, no.9, pp.462-464, Sept. 2013.
  33. E. Pucci, A.-U. Zaman, **E. Rajo-Iglesias**, P.-S. Kildal, A. Kishk, *Study of Q factors of ridge and groove gap waveguide resonators*, IET Microwaves, Antennas Propagation , vol.7, no.11, pp.900-908, August 20 2013.
  34. **E. Rajo-Iglesias**, E. Pucci, A. Kishk, P.-S. Kildal, *Suppression of Parallel Plate Modes in Low Frequency Microstrip Circuit Packages Using Lid of Printed Zigzag Wires*, IEEE Microwave and Wireless Components Letters, vol.23, no.7, pp.359-361, July 2013.

35. J.-L. Gomez-Tornero, D. Blanco, **E. Rajo-Iglesias**, N. Llombart, *Holographic Surface Leaky-Wave Lenses With Circularly-Polarized Focused Near-Fields Part I: Concept, Design and Analysis Theory*, IEEE Transactions on Antennas and Propagation, vol.61, no.7, pp.3475-3485, July 2013.
36. D. Blanco, J.-L. Gomez-Tornero, **E. Rajo-Iglesias**, N. Llombart, *Holographic Surface Leaky-Wave Lenses With Circularly-Polarized Focused Near-Fields: Part II: Experiments and Description of Frequency Steering of Focal Length*, IEEE Transactions on Antennas and Propagation, vol.61, no.7, pp.3486-3494, July 2013.
37. **E. Rajo-Iglesias**, O. Quevedo-Teruel, *Tilting Radiation Patterns in Linear Arrays Without Phase Shifters*, IEEE Transactions on Antennas and Propagation, vol.61, no.6, pp.3360-3364, June 2013. **(1 citation)**
38. G. Robles, M. Sanchez-Fernandez, R. Albarracin Sanchez, M.-V. Rojas-Moreno, **E. Rajo-Iglesias**, J.-M. Martinez-Tarifa, *Antenna Parametrization for the Detection of Partial Discharges*, IEEE Transactions on Instrumentation and Measurement, vol.62, no.5, pp.932-941, May 2013.
39. Pucci, E.; **Rajo-Iglesias**, E.; Kehn, M.N.M.; Quevedo-Teruel, O.; , *Enhancing the Efficiency of Compact Patch Antennas Composed of Split-Ring Resonators by Using Lumped Capacitors*, IEEE Antennas and Wireless Propagation Letters, vol.11, no., pp.1362-1365, 2012
40. **Rajo-Iglesias, E.**; Kildal, P.-S.; Zaman, A.U.; Kishk, A.; , *Bed of Springs for Packaging of Microstrip Circuits in the Microwave Frequency Range*, IEEE Transactions on Components, Packaging and Manufacturing Technology, vol.2, no.10, pp.1623-1628, Oct. 2012
41. Pucci, E.; **Rajo-Iglesias, E.** and Kildal, P.-S. *New Microstrip Gap Waveguide on Mushroom-Type EBG for Packaging of Microwave Components*, IEEE Microwave and Wireless Components Letters, vol.22, no.3, pp.129-131, March 2012
42. O. Quevedo-Teruel, M. Ng Mou Kehn, **E. Rajo-Iglesias**, *Dual-Band Patch Antennas Based on Short-Circuited Split Ring Resonators* IEEE Trans. on Antennas and Propagation, Vol. 59, N.8, pp. 2758-2765, August 2011.
43. A. Polemi, **E. Rajo-Iglesias**, and S. Maci *Analytical Dispersion Characteristic of a Gap-Groove Waveguide*, Progress In Electromagnetics Research M, Vol. 18, 55-72, 2011.
44. M. Ng Mou Kehn, O. Quevedo-Teruel, **E. Rajo-Iglesias**, *Reconfigurable Loaded Planar Inverted-F Antenna Using Varactor Diodes*, IEEE Antennas and Wireless Propagation Letters, vol.10, pp. 466 -468, 2011.
45. **E. Rajo-Iglesias**, P.-S. Kildal, *Numerical studies of bandwidth of parallel plate cut-off realized by bed of nails, corrugations and mushroom-type EBG for use in gap waveguides*, IET Microwaves, Antennas & Propagation Vol. 5, N. 3, pp. 282-289, February 2011.

46. P.-S. Kildal, A. U. Zaman, A. Valero, E. Alfonso, **E. Rajo-Iglesias**, *Design and experimental verification of ridge Gap Waveguide in Bed of Nails for Parallel Plate Mode Suppression*, IET Microwaves, Antennas & Propagation Vol. 5, N. 3, pp. 262-270, February 2011.
47. I. Tomeo-Reyes, **E. Rajo-Iglesias**, *Comparative Study on different HIS as Ground Planes and its Application to Low Profile Wire Antennas Design*, Progress In Electromagnetics Research PIER 115, pp. 55-77, 2011.
48. O. Quevedo-Teruel, Z. Sipus, **E. Rajo-Iglesias**, *Characterization and Reduction of Mutual Coupling between Stacked Patches*, IEEE Trans. on Antennas and Propagation, Vol. 54, N.3, pp.1031-1036, March 2011.
49. C.J. Snchez-Fernndez, O. Quevedo-Teruel, J. Requena-Carrin, L. Incln-Snchez, **E. Rajo-Iglesias**, *Dual-band microstrip patch antenna based on short-circuited ring and spiral resonators for implantable medical devices*, IET Microwaves, Antennas & Propagation, Vol. 4 , N. 8, pp: 1048-1055, August 2010.
50. O, Quevedo-Teruel, M. Snchez-Fernndez, M.L. Pablo-Gonzlez, **E. Rajo-Iglesias**, *Alternating Radiation Patterns to Overcome Angle-of-Arrival Uncertainty* IEEE Antennas and Propagation Magazine, vol. 52, N. 1, pp: 236-242, February 2010.
51. O, Quevedo-Teruel, L. Incln-Snchez, **E. Rajo-Iglesias**, *Soft Surfaces for Reducing Mutual Coupling Between Loaded PIFA Antennas*, IEEE Antennas and Wireless Propagation Letters, vol.9 pp:91-94, 2010.
52. O. Quevedo-Teruel, E. Pucci,**E. Rajo-Iglesias** *Compact Loaded PIFA for Multi-Frequency Applications*, IEEE Trans. on Antennas and Propagation, Vol. 58, N. 3, pp. 656-664, March 2010.
53. **E. Rajo-Iglesias**, Ashraf Uz Zaman, Per-Simon Kildal *Parallel plate cavity mode suppression in microstrip circuit packages using a lid of nails*, IEEE Microwave and Wireless Component Letters, vol.20, n.1, pp. 31-33, January 2010.
54. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Incln-Snchez, *Planar soft surfaces and their application to mutual coupling reduction*, IEEE Transaction on Antennas and Propagation, Vol. 57, No. 12, pp. 3852-3859, December 2009.
55. O. Quevedo-Teruel, M. Ng Mou Kehn,**E. Rajo-Iglesias** *Numerical and Experimental Studies of Split Ring Resonators Loaded on the Sidewalls of Rectangular Waveguides*, Vol. 3, No. 8, pp. 1262-1270, IET Proc. Microwave, Antennas and Propagation, December 2009.
56. J.-M. Fernandez Gonzalez, **E. Rajo-Iglesias**, and M. Sierra-Castaner *Ideally Hard Struts to Achieve Invisibility*, Progress In Electromagnetics Research, PIER 99, pp. 179-194, 2009
57. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M. Ng Mou Kehn *Multi-band SRR loaded rectangular waveguide*, IEEE Transaction on Antennas and Propagation, Vol. 57 No. 5 pp. 1571-1575, May 2009.

58. P.-S. Kildal, E. Alfonso, A. Valero-Nogueiro, **E. Rajo-Iglesias**. *Local metamaterial-based waveguides in gaps between parallel metal plates* IEEE Antennas and Wireless Propagation Letters, Vol. 8 pp. 84-89, 2009.
59. **E. Rajo-Iglesias**, J.L. Vázquez-Roy, O. Quevedo-Teruel, L. Inclán-Sánchez. *Dual band planar soft surfaces*, IET Proc. Microwave, Antennas and Propagation, Vol. 3, No. 5, pp:742-748, August 2009.
60. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias** *Proximity Coupled Microstrip Patch Antenna with Reduced Harmonic Radiation*, IEEE Transaction on Antennas and Propagation, Vol. 57, No. 1, pp. 27-32, January 2009.
61. **E. Rajo-Iglesias**, L. Inclán-Sánchez, O. Quevedo-Teruel, *Back radiation reduction in patch antennas using planar soft surfaces*, Progress In Electromagnetics Research Letters, Vol. 6, 123-130, 2009.
62. O. Quevedo-Teruel, **E. Rajo-Iglesias**. *Inverted Mode Patch Antenna for Dual-Band Communications*, IEEE Antennas and Wireless Propagation Letters, Vol. 7, Pp. 792-794, 2008.
63. M. Ng Mou Kehn, O. Quevedo-Teruel, **E. Rajo-Iglesias**. *Split Ring Resonator Loaded Waveguides with Multiple Stopbands*, Electronic Letters, Vol. 44. N. 12, Págs. 714-716, June 2008.
64. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M. Sánchez-Fernández. *Compact Multimode Patch Antennas for MIMO Applications*, IEEE Antennas and Propagation Magazine, Vol. 50, N. 2, Págs. 197-205, April 2008.
65. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Inclán-Sánchez. *Mutual coupling reduction in patch antenna arrays by using a planar periodic structure and a multilayer dielectric substrate*, IEEE Transactions on Antennas and Propagation, Vol. 56, N. 6, Págs. 1648-1655, June 2008.
66. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias**. *High isolation proximity coupled multilayer patch antenna for dual-frequency operation*, IEEE Transactions on Antennas and Propagation, Vol. 56, N.4, Págs. 1180-1183, April 2008.
67. **E. Rajo-Iglesias**, L. Inclán-Sánchez, P.-S. Kildal. *Comparison of bandwidths of mushroom-type EBG surfaces and corrugated and strip-type soft surfaces when used as narrow ground planes*, IET Proc. Microwave, Antennas and Propagation Vol.2, N. 3, Págs. 248-258, April 2008.
68. M. Sánchez-Fernández, **E. Rajo-Iglesias**, O. Quevedo-Teruel, M.L. Pablo-González. *Spectral efficiency in MIMO systems using space and pattern diversity under compactness constraints*. IEEE Transactions on Vehicular Technology, Vol.57, No.3, Págs. 1637-1646, May 2008
69. L.E. García-Muñoz, E. de Lera, **E. Rajo-Iglesias**. *Tapered slotline antenna modification for radiation pattern improving*. Microwave and Optical Technology Letters. Wiley. Vol. 49, No. 10, Pp. 2590-2595. October 2007.

70. **E. Rajo-Iglesias**, L. Inclán-Sánchez, J.L. Vázquez-Roy, L.E. García-Muñoz. *Size reduction of mushroom-type EBG surfaces by using edge-located vias*. IEEE Microwave and Wireless Component Letters. Vol. 17, No. 9, Pp. 670-672. September 2007.
71. **E. Rajo-Iglesias**, L. Inclán-Sánchez, L.E. García-Muñoz. *Analysis of patch antennas on a multilayer substrate with a embedded periodic structure*. Microwave and Optical Technology Letters. Wiley. Vol. 49, No. 7, Pp. 1717-1722. July 2007.
72. **E. Rajo-Iglesias**, O. Quevedo-Teruel. *Linear array synthesis using an Ant Colony Optimization based algorithm*, IEEE Antennas and Propagation Magazine. Vol. 49, No. 2, Pp. 70-79. April 2007.
73. O. Quevedo-Teruel, **E. Rajo-Iglesias**, A. Oropesa-García. *Hybrid algorithms for electromagnetic problems and the no-free-lunch framework*, IEEE Transactions on Antennas and Propagation. Vol. 55, No. 3, Pp. 742-749. March 2007.
74. **E. Rajo-Iglesias**, M. Caiazzo, L. Inclán-Sánchez, P.-S. Kildal. *Comparison of band-gaps of mushroom-type EBG surface and corrugated and strip-type soft surfaces*, IET Proc. Microwave, Antennas and Propagation. Vol. 1, No. 1, Pp. 184-189. February 2007.
75. O. Quevedo-Teruel, **E. Rajo-Iglesias**. *Design of short circuited ring patch antennas working at  $TM_{01}$  mode based on neural networks*, IEEE Antennas and Wireless Propagation Letters, Vol. 5, Pp. 559-562, 2006.
76. E. García, C. O'Sullivan, **E. Rajo**, J.L. Vázquez. *Error correction in the gaussian beam telescope applied to the new 40m radiotelescope of Centro Astronómico de Yebes*, Microwave and Optical Technology Letters. Wiley. Vol. 48, No. 10. Pp. 2074-2077. October 2006.
77. O. Quevedo-Teruel, **E. Rajo-Iglesias**. *Ant Colony Optimization in thinned array synthesis with minimum sidelobe level*, IEEE Antennas and Wireless Propagation Letters. Vol. 5. Pps. 349-352, 2006.
78. V.González-Posadas, D. Segovia-Vargas, **E. Rajo-Iglesias**, J.L. Vázquez-Roy, C. Martín-Pascual. *Approximate analysis of short circuited ring patch antenna working at  $TM_{01}$  mode*, IEEE Transactions on Antennas and Propagation. Vol. 54, No. 6. Pp. 1875-1879. June 2006.
79. **E. Rajo-Iglesias**, P. Sanabria-Martínez, J.L. Fernández-Villacañas. *Dielectric EBG design using GA*, Microwave and Optical Technology Letters. Wiley. Vol. 46, No. 3. Pp. 248-256. August 2005.
80. L. Inclán-Sánchez, **E. Rajo-Iglesias**, V. González-Posadas, J.L. Vázquez-Roy. *Design of periodic metal-dielectric structure for broadband multilayer patch antenna*, Microwave and Optical Technology Letters. Wiley. Vol. 44, No. 5. Pp. 418-421. March 2005.
81. D. Segovia-Vargas, J.L. Vázquez-Roy, **E. Rajo-Iglesias**, L. Inclán-Sánchez, V. González-Posadas, C. Martín-Pascual. *Active broadband transmitting patch antenna for GSM-1800 and UMTS*, Microwave and Optical Technology Letters. Wiley. Vol 41, No. 5. Pp. 350-354. June 2004.

82. **E. Rajo-Iglesias**, J.L. Vázquez-Roy, L. Inclán-Sánchez, D. Segovia-Vargas, V. González-Posadas, C. Martín-Pascual. *Offset stacked patches behavior in an array* Microwave and Optical Technology Letters. Wiley. Vol. 40, No. 3. Pp. 262-265. February 2004.
83. V. González Posadas, D. Segovia Vargas, **E. Rajo Iglesias**, J. L. Vázquez Roy , C. Martín Pascual. *Irradiating micro organisms on floors with a focalised structure composed of two patch antennas* , Microwave and Optical Technology Letters. Wiley. Vol. 35, No. 5. Pp. 389-393. December 2002.
84. **E. Rajo-Iglesias**, J.L. Vázquez-Roy, D. Segovia-Vargas, V. González-Posadas, C. Martín-Pascual. *An extension of the two-slot radiation model to stacked patches with infinite and finite ground plane*, Microwave and Optical Technology Letters. Wiley. Vol. 34, No. 1. Pp. 448-451. September 2002.
85. **E. Rajo-Iglesias**, G. Villaseca-Sánchez, C. Martín-Pascual. *Input impedance behaviour in offset stacked patches*, IEEE Antennas and Wireless Propagation Letters. Vol. 1. Pp. 28-30. January 2002.
86. **E. Rajo-Iglesias**, D. Segovia-Vargas, J.L. Vázquez-Roy, V. González-Posadas y C. Martín-Pascual. *Bandwidth Enhancement in Non-Centered Stacked Patches*. Microwave and Optical Technology Letters. Wiley. Vol 31, No. 1. Pp.: 53-56. October 2001.
87. V. González, J.M. Rodríguez, C. Rueda, D. Segovia, **E. Rajo**, C. Martín-Pascual. *Low-Bias BAR-mode HEAP transmitting antennas*. Microwave and Optical Technology Letters. Wiley. Vol. 29, No. 3. Pp. 163-167. May 2001.

### 3. Research Stages Abroad

- *Center*: Ecole Nationale Supérieure d'Electronique, d'Electrotechnique, d'Informatique et d'Hydraulique de Toulouse (E.N.S.E.E.I.H.T.)  
*Place*: Toulouse (France)  
*Date*: January 96.      *Period*: 8 months  
*Type*: Erasmus Scholarship.
- *Center*: Ansaldo Transporti  
*Place*: Naples (Italy)  
*Date*: March 97      *Period*: 2 months  
*Type*: European Union Grant for mobility of young researchers.
- *Center*: Universidad Sophia AnTypelis and CNET (Centre National des Études en Télécommunication) de France Telecom  
*Place*: Nice (France)  
*Date*: October 99      *Period*: 2 months  
*Type*: Pre-doctoral stage.

- *Center:* ESTEC, European Space Agency (ESA)  
*Place:* Noordwijk (Holanda)  
*Date:* September 03      *Period:* 2 months  
*Type:* Grant of the Univ. Carlos III for the Mobility of Young Doctors.
- *Center:* Chalmers University of Technology  
*Place:* Gothenburg (Sweden)  
*Date:* September 04      *Period:* 3 months  
*Type:* Grant of the Univ. Carlos III for the Mobility of Young Doctors and Short Scientific Term Mission COST 284.
- *Center:* Chalmers University of Technology  
*Place:* Gothenburg (Sweden)  
*Date:* October 05      *Period:* 2 months  
*Type:* Grant of the Univ. Carlos III for the Mobility of Young Doctors.
- *Center:* Chalmers University of Technology  
*Place:* Gothenburg (Sweden)  
*Date:* October 06      *Period:* 3 months  
*Type:* Guest researcher.
- *Center:* Chalmers University of Technology  
*Place:* Gothenburg (Sweden)  
*Date:* October 07      *Period:* 5 months  
*Type:* Grant of the spanish Ministry of Education for Mobility of Young Doctors.
- *Center:* Chalmers University of Technology  
*Place:* Goteborg (Sweden)  
*Date:* October 08      *Period:* 4 months  
*Type:* Grant of the spanish Ministry of Education for Mobility of Young Doctors.
- *Center:* Chalmers University of Technology  
*Place:* Goteborg (Sweden)  
*Date:* October 09      *Period:* 2 months  
*Type:* Invited researcher.
- *Center:* Chalmers University of Technology  
*Place:* Goteborg (Sweden)  
*Date:* October 10      *Period:* 2 months  
*Type:* Invited researcher.
- *Center:* University of Siena  
*Place:* Siena (Italy)

*Date:* May 12                      *Period:* 4 months  
*Type:* Mobility Grant from Fundacion Caja Madrid.

- *Center:* Universidad Paris X  
*Place:* París (Francia)  
*Date:* December 12                      *Period:* 1 month  
*Type:* Invited Professor.
  
- *Center:* KTH Royal Institute of Technology  
*Place:* Stockholm (Sweden)  
*Date:* March 2016                      *Period:* 3 months  
*Type:* Grant of the spanish Ministry of Economy for Mobility of Senior Researchers.
  
- *Center:* University of Trento  
*Place:* Trento (Italy)  
*Date:* September 2017                      *Period:* 1 month  
*Type:* Invited Professor.
  
- *Center:* Pontificia Universidad Católica de Valparaíso  
*Place:* Valparaíso (Chile)  
*Date:* September 2019 & January 2020                      *Period:* 2 months  
*Type:* Invited Professor.

## 4. Participation in research projects with public funding

### 4.a. Research Projects

- *TITLE:* “*Sistemas de antena eficientes para las futuras redes de comunicación (IN-MA)* ”  
*FUNDED BY:* Agencia Estatal de Investigación (AEI) PID2019-107688RB-C21  
*FROM:* June 2020                      *TO:* June 2023.  
*PROJECT LEADER :* Eva Rajo Iglesias
  
- *TITLE:* “*Antenna designs for SATCOM on the move in Ka band based on the use of metasurfaces* ”  
*FUNDED BY:* Ministerio de Economía y Competitividad TEC2016-79700-C2-2-R  
*FROM:* January 2017                      *TO:* December 2019.  
*PROJECT LEADER :* Eva Rajo Iglesias
  
- *TITLE:* “*High Capacity Textile Device Based on Massive MIMO Techniques (CMI-MOTEX)*”



FUNDED BY: Ministerio de Economía y Competitividad TEC2014-61776-EXP

FROM: January 2015 TO: December 2016.

PROJECT LEADER : Matilde Sánchez Fernández

- TITLE: “*Wireless Communications in Security and Emergency Environments (CIES)*”

FUNDED BY: Ministerio de Economía y Competitividad RTC2015-4213-7

FROM: February 2015 TO: December 2018.

PROJECT LEADER: Matilde Sánchez Fernández

- TITLE: “*Space debris radar*”

FUNDED BY: Comunidad de Madrid . S2013/ICE-3000

FROM: October 2014 TO: October 2018.

PROJECT LEADER: Jesús Grajal de la Fuente (del proyecto coordinado). Eva Rajo Iglesias (del subproyecto de la UC3M)

- TITLE: “*Development of components and antennas in gap-waveguide technology for the improvement of transceiver performance in millimeter bands*”

FUNDED BY: Ministerio de Economía y Competitividad .TEC2013-44019-R

SINCE: January 2014 TO: December 2016.

PROJECT LEADER: Eva Rajo Iglesias

- TITLE: “*Antennas in the Millimeter Range for High-Altitude Wireless Applications Speed*”

FUNDED BY: Ministerio de Ciencia e Innovación.TEC2010-20841-C04-01

FROM: January 2011 TO: December 2013.

PROJECT LEADER: Alejandro Valero Nogueira

- TITLE: “*New Reconfigurable Antenna Designs for Communications, Vehicles and Security Applications in the Millimeter Band*”

FUNDED BY: Comunidad de Madrid.

FROM: January 2011 TO: December 2011.

PROJECT LEADER: Eva Rajo Iglesias.

- TITLE: “*Left-Handed Metamaterials Composed of Split-Ring Resonators as Direct Radiators for Modern Antenna Applications Featuring Array Matching, Miniaturization, Multi-Functionality, and Reconfigurability*”

FUNDED BY: National Science Council of Taiwan (NSC 99-2221-E-009-033)

FROM: November 2010 TO: January 2012.

PROJECT LEADER: Malcolm Ng Mou Kehn

- TITLE: *“New electronic and optical techniques for the development of IMAGING ARRAYS (cameras) in millimeter waves and terahertz (THz).Aplicaciones”*  
FUNDED BY: Ministerio de Innovacin y Ciencia  
FROM: January 2010 TO: December 2012.  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: *“Metamaterials Composed of Split-Ring Resonators as Direct Radiators for Modern Antenna Applications”*  
FUNDED BY: National Science Council of Taiwan (NSC 99-2218-E-009-009)  
FROM: January 2010 TO: October 2010.  
PROJECT LEADER: Malcolm Ng Mou Kehn
- TITLE: *“Study and implementation of a receiver of submillimeter waves based on the physiology of the eye human.”*  
FUNDED BY: Comunidad de Madrid.  
FROM: January 2009 TO: December 2009.  
PROJECT LEADER: Luis Enrique Garca Muoz.
- TITLE: *“Terahertz Techonology for Electromagnetic Sensing Applications.”*  
FUNDED BY: MINISTERIO DE CIENCIA E INNOVACION. Programa Consolder.  
FROM: December 2008 TO: December 2013.  
PROJECT LEADER: Daniel Segovia Vargas.
- TITLE: *“Development of New Ultra Wide Band Printed Antennas”*  
FUNDED BY: Comunidad de Madrid. CCG07-UC3M/TIC-3393  
FROM: January 2008 TO: December 2009.  
PROJECT LEADER: Jos Luis Vzquez Roy.
- TITLE: *“ New Materials, Devices and Radiant Systems to Miniaturize and Improve Performance on Radiofrequency Front-ends.”*  
FUNDED BY: : Spanish Ministry of Science and Technology (TEC2006-13248-C04-04).  
FROM: October 2006 TO: October 2009.  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: *“Development of Compact Multifunction Antennas with High Efficiency based on EBGs and Metamaterials”*.  
FUNDED BY: Regional Government of Madrid. CCG06-UC3M/TIC-0803  
FROM: January 2007 TO: December 2007.  
PROJECT LEADER: Eva Rajo Iglesias.

- TITLE: “ *Design of the Communications Network EHAS*”.  
FUNDED BY: : European Commission /EUROPEAID (ALA/2002/047-639/3151)  
FROM: December 2003 TO: December 2006  
PROJECT LEADER: Andrés Martínez Fernández
- TITLE: “ *Multifrequency antennas based on patches on periodic substrates*”.  
FUNDED BY: : Spanish Ministry of Science and Technology (TIC 2003-03808)  
FROM: December 2003 TO: December 2006  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: “ *RF adaptive front-ends in transmission and reception for base stations in 3.5 GHz*”.  
FUNDED BY: Regional Government of Madrid.: 07T/0019/2000 (OTRI: 01379)  
FROM: January 2001 TO: January 2003  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: “ *Study and Evaluation of new multiuser detection techniques and its application to Wireless local networks*”.  
FUNDED BY: Spanish Ministry of Science and Technology.(TIC 1999-0210)  
FROM: January 2000 TO: January 2002  
PROJECT LEADER: Javier Ramos López.

## 5. Research projects with private funding

- TÍTULO: “ *Antenas 5G para acceso fijo a internet con mejora de capacidad, 5G-AFIANCE*”  
FUNDING COMPANY: Nokia Spain, S.A.  
FROM: July 2020 TO: July 2022  
PROJECT LEADER: Eva Rajo Iglesias
- TÍTULO: “ *Tecnologías para la asequibilidad del acceso de banda ancha, TREFOIL*”  
FUNDING COMPANY: Nokia Spain, S.A.  
FROM: April 2020 TO: July 2022  
PROJECT LEADER: Eva Rajo Iglesias
- TÍTULO: “ *Overlapped subarray fed reflector antennas for SAR instrument, tender European Space Agency*”  
FUNDING COMPANY: Airbus Defense and Space, S.A.U.  
FROM: February 2020 TO: February 2021  
PROJECT LEADER: Eva Rajo Iglesias

- TÍTULO: *“Tecnologías Radio para IoT marítima.”*  
FUNDING COMPANY: Blue Matter Technologies, S.L.  
FROM: January 2019 TO: December 2021  
PROJECT LEADER: Eva Rajo Iglesias
- TÍTULO: *“Antenna design as a solution for IoT communications on ships. Phase 2.”*  
FUNDING COMPANY: Blue Matter Technologies, S.L.  
FROM: January 2019 TO: May 2019  
PROJECT LEADER: Eva Rajo Iglesias
- TITLE: *“Antenna design as a solution for IoT communications on ships”*  
FUNDING COMPANY: Blue Matter Technologies, S.L.  
FROM: January 2018 TO: December 2018  
PROJECT LEADER: Eva Rajo Iglesias
- TITLE: *“Dichroic Frequency Selective Surface FSS Design for Ku-band”*  
FUNDING COMPANY: EADS CASA Espacio, S.L.  
FROM: July 2016 TO: December 2016  
PROJECT LEADER: Eva Rajo Iglesias
- TITLE: *“Demonstrator of transparent antenna features”*  
FUNDING COMPANY: Alcatel Lucent España, S.A.  
FROM: May 2016 TO: November 2016  
PROJECT LEADER: Eva Rajo Iglesias
- TITLE: *Development and Support for the integration in antenna communications cabinet for the GPRS band*  
FUNDING COMPANY: Ormazabal Protection & Automation S.L.  
FROM: January 2014 TO: July 2014  
PROJECT LEADER: Luis de Inclán Sánchez
- TITLE: *Development and Support to the industrialization of dual band and low profile patch antenna to operate in GPRS*  
FUNDING COMPANY: Ormazabal Protection & Automation S.L.  
FROM: January 2010 to: September 2012  
PROJECT LEADER: Luis de Inclán Sánchez
- TITLE: *Design and feasibility study of dual band and low profile patch antenna to operate in GPRS*  
FUNDING COMPANY: Ormazabal Protection & Automation S.L.  
FROM: May 2009 TO: July 2009  
PROJECT LEADER: Luis de Inclán Sánchez

- TITLE: *“Radiofrequency Course: I Microwaves, II Antennas and Radar, III MEdidas”*  
FUNDING COMPANY: Indra Sistemas, S.A.  
FROM: October 2006 TO: June 2007  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: *“Radiofrequency Course: I Microwaves, II Antennas and Radar, III MEdidas”*  
FUNDING COMPANY: Indra Sistemas, S.A.  
FROM: November 2005 TO: April 2006  
PROJECT LEADER: Daniel Segovia Vargas
- TITLE: *Collaboration with industrial research in the study of proximity detectors*  
FUNDING COMPANY: Expace on board systems  
FROM: September 2009 to: March 2010  
PROJECT LEADER: Eva Rajo Iglesias
- TITLE: *Design and Construction of a Focal Plane Lighting System in the 0.3 to 1 GHz Band*  
FUNDING COMPANY: Dirección General del Instituto Geografico Nacional  
FROM: May 2007 TO: May 2008  
PROJECT LEADER: L. Enrique García Muñoz
- TITLE: *Development, construction and measurement of an array of antennas for motion detection.*  
FUNDING COMPANY: Universidad Politécnica de Madrid  
FROM: October 2007 TO: November 2007  
PROJECT LEADER: L.Enrique García Muñoz
- TITLE: *Design and construction of an ultra-wideband antenna*  
FUNDING COMPANY: Centro Astronómico de Yebes  
FROM: July 2005 TO: October 2005  
PROJECT LEADER: L.Enrique García Muñoz

## 6. Book chapters

- AUTHORS: **Eva Rajo-Iglesias**, Zvonimir Sipus, Ashraf Uz Zaman  
CHAPTER: *Chapter 6: Gap Waveguide Technology*  
BOOK: “Surface Electromagnetics: With Applications in Antenna, Microwave, and Optical Engineering”  
EDITORIAL: Edited by F. Yang, Y. Rahmat-Samii, Cambridge University Press  
ISBN: 9781108470261  
DATE: June 2019.

- **AUTHORS:** **Eva Rajo-Iglesias**, Mohammad S. Sharawi  
**CHAPTER:** *Chapter 5: MIMO Antennas*  
**BOOK:** “Wideband, Multiband and Smart Reconfigurable Antennas for Modern Wireless Communications”  
**EDITORIAL:** Edited by M. Matin, IGI-Global Publishing Group  
**ISBN:** 9781466686458  
**DATE:** 2015.
- **AUTHORS:** Javan Efarnian (Editor and lead author), Hung Nguyen, **Eva Rajo Iglesias**, Matilde Sánchez Fernández, Mojca Volk  
**CHAPTER:** *Chapter 4: Radio Engineering and Antennas*  
**BOOK:** “A Guide to the Wireless Engineering Body of Knowledge (WEBOK)”  
**EDITORIAL:** Wiley  
**ISBN:** 978111834557  
**DATE:** 2012.
- **AUTHORS:** **Eva Rajo-Iglesias**, Oscar Quevedo-Teruel, Luis Inclán-Sánchez.  
**CHAPTER:** *On the use of ACO Algorithm for Electromagnetic Designs*  
**BOOK:** “Ant Colony Optimization - Methods and Applications”  
**EDITORIAL:** Edited by Avi Ostfeld, InTech  
**ISBN:** 9789533071572  
**DATE:** February 2, 2011.

## 7. Patents

- A. Martín-Bartrina, J.L. Vázquez-Roy, L. Inclán Sánchez, **E. Rajo-Iglesias**, *Antenna Array Module*, Maritime IoT Solutions BV. Fecha de solicitud: 12/05/2020, Patente núm. 20382203.6-1205.
- A. Fernández, G. Touchard, L. Inclán Sánchez, **E. Rajo-Iglesias**, *Antenna*, Nokia Solutions and Networks. Fecha de solicitud: 19/06/2018, Patente núm. 18178502.3-1205.
- J.L. Vázquez Roy, L. Inclán Sánchez, **E. Rajo Iglesias**, O. Quevedo Teruel, *Antena microstrip monopolar de doble frecuencia*. Fecha de solicitud : 28/06/2013. ES 1 085 529 U.
- P.S. Kildal, A. Kishk, **E. Rajo-Iglesias** *Packaging of active and passive microwave circuits using a grid of planar conducting elements on a grid of vertically arranged substrates*. GapWaves AB, Dec., 19 2013, WO2013185807A1.
- P.S. Kildal, A. Kishk, **E. Rajo Iglesias** *Packaging of active and passive microwave circuits using lid or bed of curved posts*. Kildal Antenn Consulting Nov., 30 2011. EP2390953 A1.
- L. Inclán Sánchez, J.J. Sánchez Gutiérrez, **E. Rajo Iglesias**, J.L. Vázquez Roy, O. Quevedo Teruel, *Surface consisting of miniature horizontal plane corrugations, antenna and circuit*. Universidad Carlos III de Madrid, Oct., 20 2011, WO 2011/128471.

- O. Quevedo Teruel, L. Inclán Sánchez, **E. Rajo Iglesias**, J. Requena Carrión, *Antena microstrip compacta multifrecuencia*. Fecha de solicitud : 28/07/2009. Titularidad: (75 %)Universidad Carlos III de Madrid, (25 %) Universidad Rey Juan Carlos P200901663.

## 8. International Conference papers

1. **E. Rajo-Iglesias**. “Ka-band Antennas Designed with Cost-effective Versions of Gap Waveguide Technology” *Metamaterials 2020*. Invited Talk.
2. L. F. Herran, A. A. Brazalez, M. N. M. Kehn and **E. Rajo-Iglesias**, “Design of antenna arrays using groove gap waveguide technology implemented with glide symmetric holes,” 2020 14th European Conference on Antennas and Propagation (EuCAP), Copenhagen, Denmark, 2020
3. Q. Liao, **E. Rajo-Iglesias** and O. Quevedo-Teruel, “Groove Gap Waveguide Slot Array Based on Glide-Symmetric Holes,” 2020 14th European Conference on Antennas and Propagation (EuCAP), Copenhagen, Denmark, 2020
4. J. Benavides-Vazquez, J. L. Vázquez-Roy and **E. Rajo-Iglesias**, “High-gain Resonant Continuous Transverse Stub Array Using Ridge Gap-Waveguide Technology,” 2020 14th European Conference on Antennas and Propagation (EuCAP), Copenhagen, Denmark, 2020
5. J. Poyanco, N. Castro, F. Pizarro and **E. Rajo-Iglesias**, “3D-printed Wideband Hyperbolic Lens Antenna for Ka-band,” 2020 14th European Conference on Antennas and Propagation (EuCAP), Copenhagen, Denmark, 2020
6. N. Memeletzoglou and **E. Rajo-Iglesias**, “Design of an array of stacked groove gap waveguide leaky-wave antennas in the Ka band,” 2020 14th European Conference on Antennas and Propagation (EuCAP), Copenhagen, Denmark, 2020
7. C. Hsieh, M. N. Mou Kehn and **E. Rajo-Iglesias**, “Design of a Transverse Slot Array in Groove Gap Waveguide using Horns at 28 GHz Band,” 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, USA, 2019
8. N. Memeletzoglou and **E. Rajo-Iglesias**, “Array of stacked leaky wave antennas based on gap waveguide technology,” 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, USA, 2019, pp. 669-670
9. N. Memeletzoglou and **E. Rajo-Iglesias**, *Design of a holey metasurface prism to reduce dispersion in groove gap waveguide leaky wave antennas*, 2019 13th European Conference on Antennas and Propagation (EuCAP), Krakow, Poland, 2019.
10. **E. Rajo-Iglesias**, A. Algaba Brazález, Q. Liao, O. Quevedo-Teruel, *Design of Planar Arrays With Groove Gap Waveguide Technology Implemented With Glide-Symmetric Holey Structures*, 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, EEUU, 2018.

11. L. Wang, J.L. Gómez-Tornero, **E. Rajo-Iglesias**, O. Quevedo-Teruel, *Reducing the Dispersion of Groove Gap Waveguide Leaky-wave Antennas by Loading with a Pin-type Prism*, 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, EEUU, 2018.
12. N. Memeletzoglou, D. Blanco, **E. Rajo-Iglesias**, *Single-Layer Dual-Band Leaky Wave Antennas Design Methodology with Directivity Control*, 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, EEUU, 2018.
13. A. U. Zaman, **E. Rajo-Iglesias**, *Millimeter wave Microstrip Fed Slot Array Antenna with PMC Packaging for Future 5G Systems*, 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, EEUU, 2018.
14. O. Quevedo-Teruel, M. Ebrahimpouri, Q. Liao, A. Algaba-Brazález, A. Tamayo-Dominguez, J. M. Fernández-González, P. Padilla, Z. Sipus, **Eva Rajo-Iglesias**, *Glide-Symmetric Holey Metallic Structures for Cost-Effective Implementations of Gap Waveguide Technology*, 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, EEUU, 2018.
15. L. Wang, J.L. Gómez-Tornero, **E. Rajo-Iglesias**, O. Quevedo-Teruel, *On the Use of a Metasurface Prism in Gap-waveguide Technology to Reduce the Dispersion of Leaky-wave Antennas*, 2018 12th European Conference on Antennas and Propagation (EUCAP), Londres, 2018.
16. N. Memeletzoglou, D. Blanco, **E. Rajo-Iglesias**, *Design Methodology for Single Layer Dual-Band Leaky Wave Antennas*, 2018 12th European Conference on Antennas and Propagation (EUCAP), Londres, 2018.
17. M. Ramírez-Torres et al., “Technological developments for a space-borne orbital debris radar at 94 GHz,” 2018 IEEE Radar Conference (RadarConf18), Oklahoma City, OK, USA, 2018, pp. 0564-0569.
18. M. Sierra-Castañer, A. T. Domínguez, M. B. Gea, E. Rajo-Iglesias and J. L. Vazquez-Roy, “Monopulse RLSA antenna at 24 GHz based on a gap-waveguide cavity feed,” 2017 47th European Microwave Conference (EuMC), Nuremberg, 2017, pp. 1234-1237.
19. F. Julian, G. Bernal and E. Rajo-Iglesias, “Design of a wide band Butler matrix in groove gap waveguide technology,” 2017 International Symposium on Antennas and Propagation (ISAP), Phuket, 2017, pp. 1-2.
20. L. Inclan-Sanchez, C. Sanchez-Cabello, J. L. Vazquez-Roy and E. Rajo-Iglesias, “New EBG-filter design in inverted microstrip gap waveguide technology,” 2017 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, San Diego, CA, 2017, pp. 1663-1664.
21. M. Ebrahimpouri, **E. Rajo-Iglesias** and O. Quevedo-Teruel, “Wideband glide-symmetric holey structures for gap-waveguide technology,” 2017 11th European Conference on Antennas and Propagation (EUCAP), Paris, France, 2017, pp. 1658-1660.



22. M. Ebrahimpouri, O. Quevedo-Teruel and **E. Rajo-Iglesias**, "Design of microwave components in groove gap waveguide technology implemented by holey EBG," 2017 11th European Conference on Antennas and Propagation (EUCAP), Paris, France, 2017, pp. 746-748.
23. C. Sánchez-Cabello, L. Inclán-Sánchez, J. L. Vázquez-Roy and **E. Rajo-Iglesias**, "Design of antenna feed with amplified power distribution using groove-gap waveguide technology," 2017 11th European Conference on Antennas and Propagation (EUCAP), Paris, France, 2017, pp. 1661-1664.
24. M. Ebrahimpouri, **E. Rajo-Iglesias**, Z. Sipus and O. Quevedo-Teruel, "Low-cost metasurface using glide symmetry for integrated waveguides," 2016 10th European Conference on Antennas and Propagation (EuCAP), Davos, 2016, pp. 1-2.
25. M. Vukomanovic, Z. Sipus, J. L. Vazquez-Roy, **E. Rajo-Iglesias** and O. Quevedo-Teruel, "Leaky wave antenna integrated into gap waveguide technology," 2016 IEEE International Symposium on Antennas and Propagation (APSURSI), Fajardo, 2016, pp. 75-76.
26. **E. Rajo-Iglesias** and A. A. Brazález, "5G antenna in inverted microstrip gap waveguide technology including a transition to microstrip," 2016 International Symposium on Antennas and Propagation (ISAP), Okinawa, 2016, pp. 1042-1043.
27. A. A. Brazález, **E. Rajo-Iglesias** and P. S. Kildal, "Design of millimeter-wave wideband gap waveguide transitions considering integration into the antenna system," 2015 9th European Conference on Antennas and Propagation (EuCAP), Lisbon, 2015, pp. 1-5.
28. A. Algaba-Brazalez and **E. Rajo-Iglesias**, "Design of a Butler matrix at 60GHz in inverted microstrip gap waveguide technology," 2015 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Vancouver, BC, 2015, pp. 2125-2126.
29. C. Sánchez Cabello and **E. Rajo-Iglesias**, "Optimized self-diplexed antenna in gap waveguide technology," 2015 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Vancouver, BC, 2015, pp. 460-461.
30. A. A. Brazález, **E. Rajo-Iglesias** and P. S. Kildal, "Design of a transition from WR-15 to microstrip packaged by gap waveguide technology," 2014 International Symposium on Antennas and Propagation Conference Proceedings, Kaohsiung, 2014, pp. 235-236.
31. A. A. Brazález, **E. Rajo-Iglesias** and P. S. Kildal, "Investigation of transitions for use in inverted microstrip gap waveguide antenna arrays," The 8th European Conference on Antennas and Propagation (EuCAP 2014), The Hague, 2014, pp. 995-999.
32. C. S. Cabello and **E. Rajo-Iglesias**, "Low cost self-diplexed antenna in inverted microstrip gap waveguide technology," 2014 International Symposium on Antennas and Propagation Conference Proceedings, Kaohsiung, 2014, pp. 169-170.

33. Uz Zaman, A.; **Rajo-Iglesias, E.**; Kildal, P.-S., *Prospective new PMC based Gap Waveguide shielding for microwave modules*, Electromagnetic Compatibility (EMC Europe), 2014 International Symposium on , vol., no., pp.459,463, 1-4 Sept. 2014
34. Vico-Martinez, A.; Blanco, D.; **Rajo-Iglesias, E.**, *Evaluation of the performance of wearable directive antennas based on Fabry-Perot type*, Invited paper, Antennas and Propagation Society International Symposium (APSURSI), 2014 IEEE , vol., no., pp.315,316, 6-11 July 2014
35. Algaba Brazalez, A.; **Rajo Iglesias, E.**; Kildal, P.-S., *Investigation of transitions for use in inverted microstrip gap waveguide antenna arrays*, Antennas and Propagation (EuCAP), 2014 8th European Conference on , vol., no., pp.995,999, 6-11 April 2014
36. **E. Rajo-Iglesias**, M. L. Pablo-González, M. Sanchez-Fernandez *Evaluation of performance of compact double diversity printed elements for MIMO applications*, Invited paper, IEEE URSI AP-S International Symposium on Antennas; Orlando, USA. July 7-13 2013.
37. E. Pucci, **E. Rajo-Iglesias**, J.-L. Vazquez-Roy, P.-S. Kildal, *Design of a Four-Element Horn Antenna Array Fed by Inverted Microstrip Gap Waveguide*, IEEE URSI AP-S International Symposium on Antennas; Orlando, USA. July 7-13 2013.
38. L. Inclan-Sanchez, **E. Rajo-Iglesias**, J.-L. Vazquez-Roy, *Dual band monopolar patch antenna for industrial applications* IEEE URSI AP-S International Symposium on Antennas; Orlando, USA. July 7-13 2013.
39. N. Llombart, D. Blanco, **E. Rajo-Iglesias**, Antonio Montesano-Benito, Jennifer Campuzano, *Thinned Printed Technology Phased Array Enhanced with Frequency Selective Surfaces for Space Applications*, IEEE URSI AP-S International Symposium on Antennas; Orlando, USA. July 7-13 2013.
40. Pucci, E.; **Rajo-Iglesias, E.**; Kildal, P., *Design of a dual-mode horn element for microstrip gap waveguide fed array*, Antennas and Propagation (EuCAP), 2013 7th European Conference on , vol., no., pp.3086-3089, 8-12 April 2013
41. Blanco, D.; Llombart, N.; **Rajo-Iglesias, E.**; Maci, S., *Phased array integrated with Frequency Selective Surfaces for angular filtering*, Antennas and Propagation (EuCAP), 2013 7th European Conference on , vol., no., pp.3907,3908, 8-12 April 2013
42. Robles, G.; Albarracin, R.; Vazquez-Roy, J.L.; **Rajo-Iglesias, E.**; Martinez-Tarifa, J.M.; Rojas-Moreno, M.V.; Sanchez-Fernandez, M.; Ardila-Rey, J., *On the use of Vivaldi antennas in the detection of partial discharges*, Solid Dielectrics (ICSD), 2013 IEEE International Conference on , vol., no., pp. 302-305, June 30 2013-July 4 2013
43. **E. Rajo-Iglesias**, *Artificial Magnetic Conductors replacing absorbers for packaging of microstrip circuits*, Metamaterials'2012: The 6th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, St. Petersburg, Russia, 17 22 September 2012.

44. Pucci, E.; Kildal, P.; **Rajo-Iglesias, E.**; , *Evaluation of losses in microstrip gap waveguide for slot antennas applications*, Antennas and Propagation Society International Symposium (APSURSI), 2012 IEEE , vol., no., pp.1-2, 8-14 July 2012
45. Llombart, N.; Blanco, D.; **Rajo-Iglesias, E.**; Campuzano, J.; Montesano-Benito, A.; , *Leaky wave enhanced phased array for the reduction of the grating lobe level*, **Invited paper**, Antennas and Propagation Society International Symposium (APSURSI), 2012 IEEE , vol., no., pp.1-2, 8-14 July 2012
46. Blanco, D.; **Rajo-Iglesias, E.**; Llombart, N.; Gomez-Tornero, J.L.; , *Near and far-field focusing with holographic two-dimensional tapered leaky-wave spiral antennas*, Antennas and Propagation Society International Symposium (APSURSI), 2012 IEEE , vol., no., pp.1-2, 8-14 July 2012
47. **E. Rajo-Iglesias**, L. Inclan-Sanchez, O. Quevedo-Teruel, *A review of coupling reduction for antennas and shielded microstrip circuits*, **Invited paper**, Advanced Electromagnetics Symposium (AES), Paris (France), April 2012.
48. Quevedo-Teruel, O.; **Rajo-Iglesias, E.**; , *Reconfigurable sensor networks with a real time optimization method*, Antennas and Propagation (EUCAP), 2012 6th European Conference on , vol., no., pp.2632-2635, 26-30 March 2012
49. Gomez-Tornero, J.L.; Martinez-Ros, A.J.; Llombart, N.; Blanco, D.; **Rajo-Iglesias, E.**; , *Near-field focusing with holographic two-dimensional tapered leaky-wave slot antennas*, Antennas and Propagation (EUCAP), 2012 6th European Conference on , vol., no., pp.234-238, 26-30 March 2012
50. **Rajo-Iglesias, E.**; Maci, S.; , *Broadband, compact hard waveguide and its application to open-ended waveguides dense arrays*, Antennas and Propagation (EUCAP), 2012 6th European Conference on , vol., no., pp.2332-2335, 26-30 March 2012
51. **Rajo-Iglesias, E.**; Maci, S.; *Hard waveguides based on gap waveguide concept*, International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, Barcelona, October 2011.
52. **Rajo-Iglesias, E.**; Quevedo-Teruel, O.; , *Thinned array synthesis including radiation pattern diversity in the elements*, **Invited paper**, Electromagnetics in Advanced Applications (ICEAA), 2011 International Conference on, pp.853-856, Turin (Italy) 12-16 Sept. 2011
53. **Rajo-Iglesias, E.**; Quevedo-Teruel, O.; , *Array synthesis with diversity pattern using an Ant Colony algorithm*, **Invited paper** Antennas and Propagation (APSURSI), 2011 IEEE International Symposium on, pp.2433-2436, Spokane (USA), 3-8 July 2011
54. Shuyan Yang; Ng Mou Kehn, M.; Quevedo-Teruel, O.; **Rajo-Iglesias, E.**; , *A compact antenna based on SRR and spiral with increased bandwidth and radiation efficiency*, Antennas and Propagation (APSURSI), 2011 IEEE International Symposium on, pp.1270-1273, Spokane (USA), 3-8 July 2011

55. Ta-Lung Yen; Kehn, M.N.M.; Quevedo-Teruel, O.; **Rajo-Iglesias, E.**; , *A new discovery for increasing the total efficiency of a multiband microstrip antenna using a modified Split Ring Resonator with a configurable mechanism*, Antennas and Propagation (APSURSI), 2011 IEEE International Symposium on, Spokane (USA), pp.422-425, 3-8 July 2011
56. Pucci, E.; Zaman, A.U.; **Rajo-Iglesias, E.**; Kildal, P.-S.; , *New low loss inverted microstrip line using gap waveguide technology for slot antenna applications*, Antennas and Propagation (EUCAP), Proceedings of the 5th European Conference on, pp.979-982, Roma(Italia), 11-15 April 2011
57. Kildal, P.; Maci, S.; Valero-Nogueira, A.; Kishk, A.; **Rajo-Iglesias, E.**; , *The gap waveguide as a metamaterial-based electromagnetic packaging technology enabling integration of MMICs and antennas up to THz*, Antennas and Propagation (EUCAP), Proceedings of the 5th European Conference on, pp.3715-3718, Roma(Italia) 11-15 April 2011
58. Gallego-Gallego, I.; Quevedo-Teruel, O.; Inclan-Sanchez, L.; **Rajo-Iglesias, E.**; Garcia-Vidal, F.J.; , *On the use of soft surfaces to reduce back radiation in textile microstrip patch antennas*, Antennas and Propagation (EUCAP), Proceedings of the 5th European Conference on, pp.534-537, Roma(Italia), 11-15 April 2011
59. Quevedo-Teruel, O.; Sipus, Z.; **Rajo-Iglesias, E.**; , *On the reduction of mutual coupling between stacked patches by exploiting the properties of the parasitic patch*, Antennas and Propagation (EUCAP), Proceedings of the 5th European Conference on, pp.904-908, Roma(Italia), 11-15 April 2011
60. Brazalez, A.A.; Uz Zaman, A.; Pucci, E.; **Rajo-Iglesias, E.**; Kildal, P.; Kishk, A.; , *Improving microstrip filters with gap waveguide packaging*, Antennas and Propagation (EUCAP), Proceedings of the 5th European Conference on, pp.1080-1084, Roma(Italia), 11-15 April 2011
61. O. Quevedo-Teruel, L. Incln Snchez, **E. Rajo-Iglesias**, *Miniaturized Reconfigurable Filters Based on Microstrip Horizontal Corrugations*, Metamaterials'2010 Congress, Karlsruhe (Germany), September 2010.
62. P.-S. Kildal, **E. Rajo-Iglesias**, Z. Sipus, S. Maci, A. Valero, A. A. Kishk, *Progress Report on Developing the Metamaterial EBG-Based Gap Waveguide Technology for Millimeter and Submillimeter Waves*, IEEE APS 2010, Toronto (Canada), July 2010.
63. A. Polemi, **E. Rajo-Iglesias**, S. Maci, *Analytical Dispersion Characteristics of Gap-Groove Waveguides*, IEEE APS 2010, Toronto (Canada), July 2010.
64. S. Pan, **E. Rajo-Iglesias**, F. Capolino, *Artificial Magnetic Conductor from a Layer of Dogbone-Shaped Conductors over a Ground Plane*, **Invited paper** IEEE APS 2010, Toronto (Canada), July 2010.
65. O. Quevedo-Teruel, M. Ng Mou Kehn, E. Pucci, **E. Rajo-Iglesias** , *On the Increase of the Efficiency and Bandwidth of Compact PIFAs Based on SRR by Making Use of Lumped Capacitors*, IEEE APS 2010, Toronto (Canada), July 2010.

66. O. Quevedo-Teruel, **E. Rajo-Iglesias**, L. Inclán-Sánchez, J-L. Vázquez-Roy, *Reconfigurable Loaded Planar Inverted F-Antenna by Making Use of Varactor Diodes*, IEEE APS 2010, Toronto (Canada), July 2010.
67. M. Ng Mou Kehn, **E. Rajo-Iglesias**, O. Quevedo-Teruel, *Waveguide Filters with Multiple Passbands and Stopbands Achieved by Bed of Nails Implanted within Sidewall Dielectric Loadings*, 2010 14th International Symposium on Antenna Technology (ANTEM) and the American Electromagnetics Conference (AMEREM), Ottawa (Canada), July 2010.
68. M. Ng Mou Kehn, **E. Rajo-Iglesias**, and O. Quevedo-Teruel, *Waveguide Filters with Multiple Passbands and Stopbands Achieved by Bed of Nails Implanted within Sidewall Dielectric Loadings* ANTEM/AMEREM 2010, Ottawa (Canada), July 2010.
69. **E. Rajo-Iglesias**, P. Kildal, A. A. Kishk, *Packaging of Microstrip Circuits Using Spring Mattress to Suppress Cavity Modes - a Replacement for Bed of Nails*, IEEE MTT-S 2010, Anaheim (USA), May 2010.
70. E. Alfonso, M. Baquero, P. Kildal, A. Valero-Nogueira, **E. Rajo-Iglesias**, J. I. Herranz, *Design of Microwave Circuits in Ridge-Gap Waveguide Technology*, IEEE MTT-S 2010, Anaheim (USA), May 2010.
71. O. Quevedo-Teruel, M. Ng Mou Kehn and **E. Rajo-Iglesias**, *Compact SRR-shaped dual band patch antenna*, ACES conference 1010, Tampere (Finland), April 2010.
72. **E. Rajo-Iglesias** and O. Quevedo-Teruel *On the Use of the Radiation Pattern Diversity of Patch Antennas for Array Synthesis*, **Invited paper** ACES conference 1010, Tampere (Finland), April 2010.
73. Vázquez-Roy, J. L.; de Inclán-Sánchez, L.; Quevedo-Teruel, O.; **Rajo-Iglesias, E.** *Wideband Zero-Mode Circular Patch Antenna*; EUCAP 2010, Barcelona, April 2010.
74. **Rajo-Iglesias, E.**; Kildal, P.-S. *Groove Gap Waveguide: A Rectangular Waveguide Between Contactless Metal Plates Enabled by Parallel-Plate Cut-Off*, EUCAP 2010, Barcelona, April 2010.
75. Pucci, E.; Uz Zaman, A.; **Rajo-Iglesias, E.**; Kildal, P.-S.; Kishk, A., *Losses in Ridge Gap Waveguide compared with Rectangular Waveguides and Microstrip Transmission Lines*, EUCAP 2010, Barcelona, April 2010.
76. Sánchez-Fernández, C. J.; Quevedo-Teruel, O.; Requena-Carrion, J.; Inclán-Sánchez, L., **Rajo-Iglesias, E.**; Ng Mou Kehn, M. *Dual-Band Implantable Antenna Based on Short-Circuited SRR*, EUCAP 2010, Barcelona, April 2010.
77. Inclán Sánchez, L.; Vázquez-Roy, J.L.; Quevedo-Teruel, O.; **Rajo-Iglesias, E.**, *New Topologies for Miniaturized Horizontal Corrugations*, EUCAP 2010, Barcelona, April 2010.
78. Sánchez-Fernández, C. J.; Quevedo-Teruel, O.; Ng Mou Kehn, M.; **Rajo-Iglesias, E.**, *Reconfigurable Multilayer Patch Antennas Based on Metamaterials*, EUCAP 2010, Barcelona, April 2010.

79. **E. Rajo-Iglesias**, A. U. Zaman, P.-S. Kildal and A. Kishk, *Packaging of Microstrip Circuits using GAP Waveguide Approach* GigaHerzt 2010 Symposium, Lund (Sweden), April 2010.
80. E. Pucci, A. U. Zaman, **E. Rajo-Iglesias**, P.-S. Kildal and A. Kishk *Q-Factor Comparisons Between New Gap Waveguide Technology and Standard Rectangular Waveguide*, GigaHerzt 2010 Symposium, Lund (Sweden), April 2010.
81. A.U. Zaman, P.-S. Kildal, **E. Rajo-Iglesias**, A. Kishk, *Concept of Gap Waveguide and Measured Results for First Demonstrator*, GigaHerzt 2010 Symposium, Lund (Sweden), April 2010.
82. A. A. Kishk, P.-S. Kildal, **E. Rajo-Iglesias**, Z. Sipus, S. Skobelev, S. Maci, A. Valero, A. Polemi, *EBG-based gap waveguide for applications up to THz*, META10 NATO Advanced Research Workshop, Cairo (Egypt), February 2010.
83. P.-S. Kildal, **E. Rajo-Iglesias**, E. Alfonso, A. Valero, A. U. Zaman, *Wideband, lowloss, cheap, quasi-TEM metamaterial-based local waveguides in air gaps between parallel metal plates* **Invited paper** ICEAA 09 (International Conference on Electromagnetics in Advanced Applications 2009), Torino (Italy), Sept. 2009.
84. **E. Rajo-Iglesias**, O. Quevedo-Teruel, A. Fernandez-Herrera, L. Inclan-Sanchez, *Reducing mutual coupling between loaded PIFA antennas by using planar soft surfaces* (**Best Poster Award in the field of Metamaterial Applications in Antennas**), Metamaterials 2009: 3rd International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, London, UK, Sept 2009.
85. **Rajo-Iglesias, E.**, Zaman, A.U., Alfonso, E., Kildal, P.-S. *Alternative ridge gap waveguide design using a mushroom-type EBG surface* Antennas and Propagation Society International Symposium, 2009. APSURSI '09. IEEE, Charleston (USA) June 2009.
86. Tomeo-Reyes, I., **Rajo-Iglesias, E.**, *Comparative study on different AMC ground planes and its application to low profile wire antennas* Antennas and Propagation Society International Symposium, 2009. APSURSI '09. IEEE, Charleston (USA) June 2009.
87. Zaman, A.U., **Rajo-Iglesias, E.**, Alfonso, E., Kildal, P.-S., *Design of transition from coaxial line to ridge gap waveguide* Antennas and Propagation Society International Symposium, 2009. APSURSI '09. IEEE, Charleston (USA) June 2009.
88. Zaman, A.Uz., **Rajo-Iglesias, E.**, Pucci, E., Kildal, P.-S.1 *Design of Transitions and Calibration Kit in New Wideband Metamaterial-based Gap Waveguide Transmission Line Technology for Millimeter and Submillimeter Waves* 5th ESA Workshop on Millimetre Wave Technology and Applications & 31st ESA Antenna Workshop, Noordwijk, May 2009.
89. Kildal, P.-S., **Rajo-Iglesias, E.**, Sipus, Skobelev, S., Maci, S., Valero, A., *Challenges When Developing the New Wideband Metamaterial EBG-based Gap Waveguide Technology for Millimeter and Submillimeter Wave Applications* 5th ESA Workshop on Millimetre Wave Technology and Applications & 31st ESA Antenna Workshop, Noordwijk, May 2009.

90. L. Incln-Snchez, J.L. Vzquez-Roy, **E. Rajo-Iglesias**, *Gain enhancement of a multilayer microstrip patch antenna by means of a truncated planar periodic structure*, EUCAP 2009, Berlin.
91. O. Quevedo-Teruel, **E. Rajo-Iglesias**, *Tailoring the Radiation Pattern of Patch Antennas by Using Soft/Hard Surfaces*, EUCAP 2009, Berlin.
92. J.M. Fernandez-Gonzalez, **E. Rajo-Iglesias**, M. Sierra-Castaner, *Study of Cross-Sectional Shapes of Ideally Hard Cylinders to achieve Invisibility for Oblique Incidence*, EUCAP 2009, Berlin.
93. **E. Rajo-Iglesias**, P.-S. Kildal, *Cut-off bandwidth of metamaterial-based parallel plate gap waveguide with one textured metal pin surface*, EUCAP 2009, Berlin.
94. O. Quevedo-Teruel, **E. Rajo-Iglesias**, *Design of SRR-based patch antennas*, Metamaterials 2008, Pamplona.
95. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M. Ng Mou Kehn, *On the use of SRR in multi-stopband waveguide filters*, Metamaterials 2008, Pamplona.
96. **E. Rajo-Iglesias**, J.M. Fernndez, P.-S. Kildal, *Blockage Reduction of Rhombic Cylinders Using Meta-Surfaces*. IEEE APS 2008, San Diego (USA), July 2008.
97. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Incln-Snchez, *Practical Applications of Planar Soft Surfaces to Patch Antennas*. IEEE APS 2008, San Diego (USA), July 2008.
98. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M. Snchez-Fernndez *Alternating Radiation Patterns in Patch Antennas Based MIMO Terminals*. IEEE APS 2008, San Diego (USA), July 2008.
99. J.M. Fernndez, **E. Rajo-Iglesias**, P.-S. Kildal, P. Jacobsson, T. Rylander and M. Sierra-Castaer *Comparison of Blockage Widths of Ideally Hard Cylinders of Different Cross-Sectional Shapes*. IEEE APS 2008, San Diego (USA), July 2008.
100. O. Quevedo-Teruel, **E. Rajo-Iglesias** *Radiation Efficiency Study on a CRLH Based PIFA Antenna*. IEEE APS 2008, San Diego (USA), July 2008.
101. **E. Rajo-Iglesias**, J.M. Fernndez, P.-S. Kildal. *Blockage reduction of thick cylinders by shaping hard cross sections*, **Invited paper** META'08 NATO Advanced Research Workshop, Marrakesh, May 2008.
102. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Incln-Snchez, *Design considerations in planar soft surfaces*, Accepted for Loughborough Antennas & Propagation Conference, Loughborough, March 2008.
103. L. Incln-Snchez, J.L. Vzquez-Roy, **E. Rajo-Iglesias**, E. Garcya-Muoz, *Compact EBG surface based on capacitively loaded loop resonators with grounded vias* EUCAP 2007, Edinburgh, November 2007.
104. O. Quevedo-Teruel, **E. Rajo-Iglesias**, *Compact multi-frequency PIFA antenna based on backward modes* EUCAP 2007, Edinburgh, November 2007.

105. **E. Rajo-Iglesias**, M. Ng Mou Kehn, O. Quevedo-Teruel, *Optimized design of a miniaturized waveguide with SRR-loaded lateral walls*, EUCAP 2007, Edinburgh, November 2007.
106. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias**, *Characterization of new compact filter based on EBG resonators*, Metamaterials 2007 Congress 2007, Rome, October 2007.
107. **E. Rajo-Iglesias**, M. Ng Mou Kehn, O. Quevedo-Teruel, *Investigation of SRR-type FSS loaded rectangular waveguides with narrow backward travelling modal passband for use as waveguide filters*, URSI International, Ottawa (Canada), July 2007.
108. P.-S. Kildal, **E. Rajo-Iglesias**, *Mushroom surface cloaks for making struts invisible*. IEEE APS 2007, Honolulu (USA), June 2007.
109. M. Ng Mou Kehn, **E. Rajo-Iglesias**, O. Quevedo-Teruel. *Parametric study of dispersion and filtering capabilities of SRR-type FSS loaded rectangular waveguides*. IEEE APS 2007, Honolulu (USA), June 2007.
110. M. Ng Mou Kehn, **E. Rajo-Iglesias**. *Moment Method analysis of dispersion in SRR-type FSS loaded rectangular waveguides using spectral domain Green's functions and RWG basis functions*. IEEE APS 2007, Honolulu (USA), June 2007.
111. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias**. *Diplexed dual-polarization proximity coupled patch antenna*. IEEE APS 2007, Honolulu (USA), June 2007.
112. O. Quevedo-Teruel, **E. Rajo-Iglesias**, *Hybrid algorithms on antenna design*. IEEE APS 2007, Honolulu (USA), June 2007.
113. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Inclán-Sánchez. *Study of mutual coupling reduction in single and stacked multilayer patch antennas by using planar EBG structures*. IEEE APS 2007, Honolulu (USA), June 2007.
114. P.-S. Kildal, **E. Rajo-Iglesias**, U. Carlberg, T. Rylander, Z. Sipus. *Reducing side-lobes from blocking struts by metamaterials cloaking and shape optimization*, 29th ESA Antenna Workshop, Noordwijk, April 2007.
115. **E. Rajo-Iglesias**, O. Quevedo-Teruel, L. Inclán-Sánchez, L.E. García-Muñoz. *Design of a planar EBG structure to reduce mutual coupling in multilayer patch antennas*. **Best conference paper Award**, Loughborough Antennas & Propagation Conference, Loughborough, April 2007
116. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M.L. Pablo-González, M.P. Sánchez-Fernández. *Performance of MIMO systems with multiple multimode compact patch antennas*. European Conference on Antennas and Propagation. November 2006, Nice(France).
117. **E. Rajo-Iglesias**, L. Inclán-Sánchez, P.-S. Kildal. *Comparison of bandgaps and bandwidths of mushroom-type EBG surface and strip-type soft surfaces when used as narrow ground planes*. European Conference on Antennas and Propagation. November 2006, Nice(France).



118. O. Quevedo-Teruel **E. Rajo-Iglesias**. *Application of Ant Colony Optimization based algorithm to solve different electromagnetic problems*. European Conference on Antennas and Propagation. November 2006, Nice(France).
119. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias**. *Microstrip patch antenna with compact feed to reduce harmonics*. European Conference on Antennas and Propagation. November 2006, Nice(France).
120. **E. Rajo-Iglesias**, O. Quevedo-Teruel, M.L. Pablo-González, M.P. Sánchez-Fernández. *A compact dual mode microstrip patch antenna for MIMO applications*. IEEE AP-URSI 2006, Albuquerque (USA), July 2006.
121. **E. Rajo-Iglesias**, L. Inclán-Sánchez, P.-S. Kildal. *Size-reduction using strip-type soft surfaces rather than patch-type EBGs*. IEEE AP-URSI 2006, Albuquerque (USA), July 2006.
122. O. Quevedo-Teruel, **E. Rajo-Iglesias**. *Ant Colony Optimization for array synthesis*. IEEE AP-URSI 2006, Albuquerque (USA), July 2006.
123. De Lera, E.; Garcia, E.; **Rajo, E.**; Segovia, D. *A coplanar Vivaldi antenna with wide band balun proposal for the low frequency band of the SKA: approach to the FPA solution*. IEEE Mediterranean Electrotechnical Conference, 2006. MELECON 2006, May 2006.
124. L. Inclán-Sánchez, J.L. Vázquez-Roy, **E. Rajo-Iglesias**. *Study of the dispersion characteristics of one dimensional EBG with defects*. ICECOM, Dubrovnik (Croatia), October 2005.
125. M. Caiazzo, P.-S. Kildal, S. Maci, **E. Rajo-Iglesias**. *Numerical investigation of bandgaps of different soft surfaces: Corrugations and strip loaded substrate with vias*. IEEE AP-URSI 2005, Washington (USA), July 2005.
126. L. Inclán-Sánchez, E. García-Muñoz, **E. Rajo-Iglesias**. *Patch antennas over non uniform structures*. IEEE AP-URSI 2005, Washington (USA), July 2005.
127. **E. Rajo-Iglesias**, P.-S. Kildal, J. Yang, M. Caiazzo. *Comparison between bandgaps and bandwidths of back radiation of different narrow soft ground planes*. IEEE AP-URSI 2005, Washington (USA), July 2005.
128. **E. Rajo-Iglesias**, M. Caiazzo, P.-S. Kildal, J. Yang, S. Maci. *Bandgaps and bandwidths of different soft surfaces used as finite ground planes of small antennas*. Latsis Metamaterials conference, Lausanne. March 2005.
129. L. Inclán-Sánchez, **E. Rajo-Iglesias**, L.E. García, V. González, J.L. Vázquez-Roy. *A multilayer microstrip patch antenna with a periodic metallodielectric structure*. JINA 2004, Nice (France), November 2004.
130. **E. Rajo-Iglesias**, P. Sanabria-Martínez, D. Segovia-Vargas, C. Martín-Pascual. *Dielectric EBG design using advanced optimization techniques*. JINA 2004, Nice (France), November 2004.

131. D. Segovia, V. González, D. Castro, J.L. Vázquez, **E. Rajo**. *Broad band active receiving microstrip antenna for DCS-UMTS*. IEEE AP-URSI 2004, Monterrey (USA) June 2004.
132. D. Segovia, V. González, J.L. Vázquez, **E. Rajo**, L. Inclán, C. Martín . *Equalised broad band active transmitting patch antenna*. IEEE AP-URSI 2003, Columbus (USA), June 2003.
133. V. González-Posadas, **E. Rajo-Iglesias** , J. L. Vázquez-Roy, D. Segovia-Vargas ,C. Martín-Pascual. *Surface irradiation: application to focalised structures*. JINA 2002. Nice , France. November, 2002.
134. **E. Rajo-Iglesias** , C. Martín-Pascual. *Study of finite ground plane effects in stacked patches radiation patterns*. IEEE Personal Indoor and Mobile Radio Communications 2002. Lisbon, Portugal. September, 2002.
135. **E. Rajo-Iglesias**, J. L. Vázquez-Roy, L. de Inclán, D. Segovia-Vargas, V. González-Posadas, C. Martín-Pascual J.L Vázquez. *Pattern simetrization for array embedded stacked patches*. 25th ESA Antenna Workshop on Satellite Antenna Technology, ESTEC, Holanda. September, 2002.
136. **E. Rajo-Iglesias** , J. L. Vázquez-Roy, D. Segovia-Vargas ,C. Martín-Pascual. *Evaluation of the Coupling Coefficient Between Patches in Stacked Patches Using a New Radiation Model*. ANTEM 2002. Montreal , Canada. July, 2002.
137. **E. Rajo-Iglesias**, C. Martín-Pascual. *New radiation model for stacked patches with finite ground plane*. Mediterranean Microwave Symposium (MMS) 2002, Cáceres (Spain). June, 2002.
138. **E. Rajo-Iglesias**, C. Martín-Pascual *Input impedance behavior for stacked patches with upper patch offsets along main and diagonal planes*. IEEE AP-URSI, San Antonio (USA), June, 2002.
139. **E. Rajo-Iglesias**, J. L. Vázquez-Roy, D. Segovia-Vargas, C. Martín-Pascual. *Broadbanding effects of upper patch size and position on stacked patches*. 16th ICECOM. Dubrovnik , Croatia. October, 2001.
140. **E. Rajo-Iglesias**, G. Villaseca-Sánchez, C. Martín-Pascual. *Analysis of bandwidth and radiation in non-centered stacked patches*. IEEE AP-URSI, Boston (USA). July, 2001.
141. C. Martín-Pascual, **E. Rajo-Iglesias**, V. González-Posadas. **Invited Tutorial: Patches: the most versatile radiator?** . IASTED International Conference on Advanced in Communication, Rhodas (Greece). July, 2001.

## 9. Special Courses given

- “*Gap waveguides for mmWave antenna systems and RF system Integration.*” Short course in the 2020 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, 8-13 Julio 2020, Montreal, Canada.

- “*Gap Waveguides for mmWave Antenna Systems and Electronic Packaging.*” Short course in the 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, 8-13 Julio 2018, Boston, EEUU.
- Course on *Metasurfaces and Metatronics*. **European School of Antennas**. Siena, Italia. September 2017.
- Course on *Metasurfaces for Antennas*. **European School of Antennas**. Zagreb, Croatia. October 2015.
- Course on *Metasurfaces for Antennas: Canonical Surfaces, EBG Surfaces, Soft and Hard Surfaces, GAP Waveguide Technology* . **European School of Antennas**. Valencia, Spain. September, 2012.
- Invited tutorial: “Nuevos diseños de antenas de parches” en la conferencia CONATEL, Arequipa (Perú), May 2011.
- Course “Aeronautical Communications” in the Master de Integración de Sistemas Aeronáuticos Universidad Carlos III/ EADS CASA, Cursos 08/09, 9/10, 10/11, 11/12, 12/13, 13/14, 14/15, 15/16, 16/17, 17/18, 18/19.
- “*Artificial EBG surfaces and metamaterials for antennas: bandgaps, cloaking, gap waveguides, packaging, miniaturization, gain enhancement, sidelobe reduction.*”. **European School of Antennas**. Gotemburgo, Suecia. October, 2009.
- “*Artificial EBG Surfaces and Metamaterials for Antennas: Bandgaps, cloaks, miniaturization, gain enhancement.*”. **European School of Antennas**. Gothemburg, Sweden. November, 2007.
- “*Radiofrequency Course II: Antennas and Radar*”. INDRA Company. May 2007.
- “*Radiofrequency Course II: Antennas and Radar*”. INDRA Company. January 2006.
- “*Biomedical and Legal Aspects of the Electromagnetic Radiation*”. Summer School of the University Carlos III of Madrid. July 2005.
- “*Electromagnetic Radiations Measurements*”. Fondo Social Europeo. November 2004.
- “*The future of Telecommunications and the new Satellite generations*”. Summer School of the University Carlos III of Madrid. July 2001.
- “*Tele-prospection and natural resources control*”. Fondo Social Europeo. September 1998.

## 10. Awards:

- Third Award, Bell Labs Prize 2014. Winner project (among more than 400 proposals): “Unleash the Wireless Power of your Device: Blended Antenna HUBs for your Unconstrained Mobile Cloud Experience”. Matilde Sánchez-Fernández, Ana García-Armada and **Eva Rajo-Iglesias**.

- Excellence Award to Young Researchers from the Consejo Social de la Universidad Carlos III en 2014.
- Best Paper Award in Loughborough International Conference on Antennas and Propagation, April 2007.
- IET Antennas & Propagation Network Prize to the Best poster in the field of metamaterial applications in antennas, in the 3rd International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, London, UK, Aug 30th-Sept 4th, 2009.
- Finalist for the Wiley prize for the best poster in Metamaterial Theory and Modelling in 4th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, Karlsruhe (Germany). September 2010.
- First Prize of National Award Arquímedes to the **best supervisor** of M.Sc. theses in Engineering and Architecture 2010.
- Award to the best PhD Thesis 2002. University Carlos III of Madrid.

## 11. Other information

- She has been taking care of the teaching of the Electromagnetic Fields and Antenna courses (among others) at her University (bachelors level) since more than 15 years ago with very good evaluation results from the students (more than 4/5 points).
- More than 60 Supervised Bachelor/Master Thesis.
- Languages:
  - English: Fluent.
  - French: Fluent.
  - Italian:Fluent.
- Member of Scientific Committees
  - **Associate Editor** of IEEE Antennas and Propagation Magazine since 2009 to 2020.
  - **Associate Editor** of IEEE Antennas and Wireless Propagation Letters from 2011 to 2017
  - **Associate Editor** of Advanced Electromagnetics Journal from January 2013 to July 2018.
  - Senior Member of IEEE Antennas and Propagation Society.
  - Co-chair of conference CONATEL, Arequipa (Perú), May 2011.
  - Chair of the Loughborough Antennas and Propagation Conference 2016.
  - Chair of the International Workshop on Metasurfaces by Design 2017.
  - Member of the Steering Committee of IEEE Antennas and Propagation Symposium 2012 Chicago, July 2012.

- Member of the Steering Committee of EuCAP (European Conference on Antennas and Propagation) conference in Gothenburg in April 2013.
- Member of the Steering Committee of EuCAP (European Conference on Antennas and Propagation) conference in Krakow in April 2019.
- Organizer of a *Convened Sessions* in the following Conferences: EuCAP 2010, EuCAP 2013, ISAP 2013, EuCAP 2017, IEEE AP-S 2017, IEEE AP-S 2018 and EuCAP 2020.
- Evaluating experience:
  - Permanent Collaborator of Electronic and Communications Technologies (TEC), Dpto. Technologies of Production and Communications, Subdirection Gral. Research Projects, Spanish Ministry of Economy and Competitvity. Since February 2012 to December 2016.
  - She is serving as reviewer for the Italian Ministry of Education, University and Research (MIUR) in evaluating projects (2014, 2018) and also for Italian Evaluation of Research Quality exercise (VQR 2004-2010)
  - Member of the Evaluation Committee of TEC projects for the Spanish Ministry of Science and Innovation in 2008.
  - Reviewer of projects for the European Commission (2016-2018).
  - Evaluator of the PhD-contracts for the Research Foundation - Flanders (FWO), Belgium 2019, 2020.
  - Evaluator of research projects in the program *STW programme Vernieuwing-simpuls Vidi* in 2015 in the Netherlands.
  - Evaluator of the research projects of the Call PICT 2017 in Argentina.
  - Evaluator of the research projects of the Call FCT 2020 in Portugal.
  - Evaluator of Profesorado Universitario en la Comisión de Enseñanzas Técnicas para la ACAP in 2010, 2011 and 2012.
  - Evaluator of pre-doctoral and postdoctoral grants for the Gobierno Vasco (2014, 2015).
  - Evaluator of Complementos de Profesorado de la Universidad del País Vasco (2015, 2016).
  - Evaluator of the DOCENTIA program for Universidad de Santiago de Compostela for ACSUG in 2013.
  - Evaluator of postdoctoral grants and research groups for ACSUG, 2019, 2018, 2017 and 2016.
  - Member of the panel of the awards committee in the conferences:
    - LAPC 2014, Best Paper Award (non student)
    - IEEE APS 2016, Best Student Paper Award
    - EuCAP 2018, Best Student Paper Award
    - EuCAP 2020, Best Student Paper Award
  - Member of the TPC (Technical Program Committee) of the following conferences:

- European Conference on Antennas and Propagation (EuCAP) 2013, 2014, 2015, 2016, 2017, 2018 y 2019.
- IEEE International Symposium on Microwave, Antenna, Propagation, and EMC Technologies for Wireless Communications (MAPE) 2013, 2015 and 2017.
- International Symposium on Antennas, Propagation, and EM Theory (ISAPPE 2012).
- IEEE International Symposium on Antennas and Propagation (IEEE AP-S) 2016, 2017 (Antennas Vice-Chair of the TPC), 2018 and 2019.
- IEEE MTT-S International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization for RF, Microwave, and Terahertz Applications (NEMO) 2017, 2018 and 2019.
- Mediterranean Microwave Symposium (MMS) 2014, 2015, 2016, 2017 y 2018.
- Loughborough Antennas and Propagation Conference 2014-2016.
- .
- o Member of more than 30 committees of Doctoral Thesis (eight in foreign countries).
- o Member of 10 committees of Associate Professor and 4 committees of Full Professor Positions in the area of Signal Theory and Communications (one of them in Portugal).
- Head of the “Radio Technologies and Applications” research group at the University Carlos III of Madrid
- **Affiliated Professor** in the Signals and Systems Department of Chalmers University of Technology (Gothenburg, Sweden) since 2009 to 2016.
- Co-chair of the Department of Signal Theory and Communications of the University Carlos III of Madrid from January 2011 to June 2012 and from October 2016 to now.
- Five supervised (or co-supervised) PhD.
  - o Title: Innovative Electromagnetic Designs Making Use Of Periodic Structures And Advanced Optimization Tools  
Author: Oscar Quevedo Teruel  
University: Carlos III de Madrid  
Date: 22/02/2010
  - o Title: Gap Waveguide: Low Loss Microwave Passive Components and MMIC Packaging Technique for High Frequency Application  
Author: Ashraf Uz Zaman  
University: Chalmers University of Technology  
Date: 05/06/2013
  - o Title: Gap Waveguide Technology for Millimeter Wave Applications and Integration with Antennas  
Author: Elena Pucci

University: Chalmers University of Technology

Date: 20/11/2013

- Title: Leaky Waves for Near and Far-Field Antenna Beam Shaping

Author: Darwin Blanco

University: Carlos III de Madrid

Date: 27/11/2014

- Title: Gap Waveguide Technology - Electromagnetic Packaging and Transitions

Author: Astrid Algaba Brazalez

University: Chalmers University of Technology

Date: 28/08/2015

- **h-index 36** according to *Google Scholar* (with more than 4900 citations).
- **4 sexenios (1 de transferencia) y 4 quinquenios.**