



Francesco Andriulli

A New Spotlight for Biomedical Electromagnetics!

Biomedical applications of electromagnetics is a fundamental field of interest for the antennas and propagation (AP) community, which is why we have decided to debut a new column called “Bioelectromagnetics,” starting with this issue of *IEEE Antennas and Propagation Magazine*. I am very grateful to Prof. Asimina Kiourti from the ElectroScience Laboratory of The Ohio State University for agreeing to be the column’s founding editor. The column will focus on biomedical applications of electromagnetics, propagation, and antennas. All of the contributions should be written in the magazine’s style, addressing readers in our entire AP community. If the article’s content and style would make it appropriate for one of our technical publications, including *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, it is probably not suitable for the magazine. Instead, the contributions should be written to be understandable by a large technical audience so that even those AP members with research interests outside bioelectromagnetism could understand and be cross fertilized by the column’s content. Review articles from recognized experts in their respec-

Be one of our guest editors. Submit a proposal for a future special issue/section/series.

tive fields will be equally welcome. All prospective authors should first contact the column editor or editor-in-chief before preparing their manuscripts to check the compatibility of their perspective contribution with the column’s scope. We await your contributions!

IN THIS ISSUE

This issue features six interesting articles. The article by Xia et al. presents a new array design concept, equipped with experimental measurements. Karami et al. focus on an X-band array leveraging substrate-integrated waveguide feeding; it also contains a comprehensive review of antenna performance in literature. The article from Mesa et al. focuses on the computation of dispersion diagrams for periodic structures, proposing a hybrid approach that merges a commercial solver with an analytic postprocessing. Hoang et al. leverage near-field analyses to demonstrate how to improve the designs of Vivaldi antennas. The article by Sarkar et al. reviews different literature contributions on the topic of electromagnetic

energy around antennas, and details perspectives and future research paths. Finally, the article from Shome et al. offers a review on filtering antenna systems. The literature is analyzed in depth, and a thoughtful discussion of the different approaches used to deal with the challenges of the topic are presented. Enjoy your reading!

PROPOSE A TOPIC FOR A FUTURE SPECIAL ISSUE, SECTION, OR SERIES!

Be one of our guest editors. Submit a proposal for a future special issue/section/series. A special issue and section comprise up to six articles that appear in a single issue of the magazine. A special series, on the other hand, runs for several issues (one or two articles per issue). The focus of special issues/sections/series could be on either established or emerging research topics relevant for the IEEE Antennas and Propagation Society. Cross-disciplinary topics are equally welcome! You can send your proposal to apm-eic@ieee.org with 1) a title and short abstract, 2) a list of prospective guest editors with affiliations, and 3) a tentative list of potential contributors. We look forward to receiving your proposals!



Digital Object Identifier 10.1109/MAP.2021.3102709
Date of current version: 6 October 2021