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Call for Papers: Theory of Characteristic Modes and New Applications in Electromagnetic

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Introduction

Modal theory plays an important role in the field of electromagnetic theory. Characteristic mode theory is such an electromagnetic modal theory for electromagnetic radiation and scattering problems. Characteristic modes are independent of external excitation source and are capable of accurately describing the resonance characteristics of a given electromagnetic object. It finds broad engineering applications in radiation and scattering

problems, and has attracted extensive attention from worldwide researchers. In theoretical research, interests on new characteristic mode theory development are growing up, aiming to solve characteristic modes for complex electromagnetic problems such as dielectric bodies, metallic-dielectric composite problem, lossy problem, and periodic structure electromagnetic problems. In terms of applications, various new design theories and techniques based on characteristic mode theory have emerged in the design of platform integrated antennas, terminal antennas, base station antennas and other miniaturized antennas. Recently, characteristic mode theory has also been widely implemented in electromagnetic scattering controlling.

In order to allow more researchers acquire the latest progress of characteristic mode theory and its applications, *Chinese Journal of Electronics* plans to launch the special issue "Theory of Characteristic Modes and New Applications in Electromagnetic" in July 2023. Invited papers from distinguished professors will be included in this special issue. Professors, scientific researchers, and students are welcome to contribute this special issue.

Scope of this Issue

- Characteristic mode theory for complex electromagnetic problems
- Novel antenna technology based on characteristic mode theory
- Electromagnetic scattering control based on characteristic mode theory
- Fast method for characteristic mode analysis
- Other new application of characteristic mode theory

Submission Guidelines

1. The paper should belong to the author's scientific research results, the data are true and reliable, have important academic and application value, and has not been published or read in public publications or conferences. Besides, there is no issue of duplicate submission.
2. The paper should include title, abstract, keywords, body text and references, please referring to the recently papers on *Chinese Journal of Electronics* (it is a blind review and please hide the authors and funding information).
3. Please submit the paper through the [ScholarOne Manuscripts \(manuscriptcentral.com\)](https://www.manuscriptcentral.com/scholarone)
The corresponding author's contact address, telephone number, and E-mail address should be attached to the paper (Please fill in the system when you register the website, and do not put them in the manuscript. Articles will be reviewed anonymously according to the standard of normal submissions).
4. Please note "TCM2023+" in the head of the paper title when submitting it.

Schedule

Submission Deadline: July 31, 2022

Final Notification: December 31, 2022

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