PREFACE: INTRODUCING ELS XIII

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(Guest editors)

Never shall I forget the sensation of our arrival in Sicily. The sky was the bluest of blues; on one side of the train the sea was sparkling, to the other were mountains, and orange and lemon groves. The sun was dazzling. It was hot.

D. Phelps, A House in Sicily

Electromagnetic and Light Scattering crosses the boundaries of many science and engineering disciplines. It is central to both fundamental and applied research in astrophysics, atmospheric physics, geophysics, materials science, nano-optics, biology, and medicine.

The Electromagnetic and Light Scattering (ELS) conference series originates from the merging of the Workshop on Light Scattering by Nonspherical Particles (Amsterdam, 1995; Helsinki, 1997; New York, 1998) and the Workshop on Electromagnetic and Light Scattering (Bremen, 1996; Moscow, 1997; Bremen, 1998). The first combined conference was held in Vigo, Spain, in 1999, followed by Halifax (2000), Gainesville (2002), Bremen (2003), Salobreña (2005), St. Petersburg (2006), Bodrum (2007), Hatfield (2008), and Helsinki (2010). The international atmosphere and the high scientific profile of the contributions made the ELS conferences become an important appointment for the worldwide light scattering community.

The ELS XIII meeting focuses on theoretical, computational, and experimental advances in electromagnetic and light scattering by particles with arbitrary size, shape, and optical properties. Contributions cover a broad range of topics from classic subject areas such as interstellar dust, atmospheric aerosols, remote sensing observations, particle detection and characterization, to more recent research fields such as optical trapping, plasmonics, and nano-optics.

This year, together with the traditional JQSRT Young Scientist Award, Elsevier and JQSRT (Journal of Quantitative Spectroscopy and Radiative Transfer) will present the Van de Hulst Light-Scattering Award. This is meant to celebrate the life-time achievements of a scientist in the field of electromagnetic scattering by particles and its applications. The first Van de Hulst Award has been assigned to Prof. Joop Hovenier, who will give a memorial lecture during a special session of the ELS XIII conference.

ELS XIII is held in Taormina (Sicily, Italy), a “patch of paradise” as described by J.W Goethe in his “Italian Journey”. Taormina is a perfect location for a warm welcome to
researchers coming from all over the world for the meeting, offering an enchanting atmosphere, with its mixture of old times charm, natural and historical beauties, and a lively way of life.

This AAPP supplement issue, including 98 papers, collects the peer-reviewed proceedings of ELS XIII. We express our deepest thanks to all the authors and reviewers of the conference articles for their precious contribution to ELS XIII, and to the chairman of the editorial board of AAPP | Physical, Mathematical, and Natural Sciences, Prof. Paolo V. Giaquinta, for his support and collaboration in the publication of this special issue.

ELS XIII is organized in collaboration with the Dipartimento di Fisica della Matera e Ingegneria Elettronica dell’Università di Messina and the Istituto per i Processi Chimico-Fisici (IPCF) del Consiglio Nazionale delle Ricerche, and held under the patronage of the Accademia Peloritana dei Pericolanti (APP). We are extremely grateful for sponsorship to: Università degli Studi di Messina, Istituto per i Processi Chimico-Fisici (IPCF), Fondazione Bonino-Pulejo (FBP), NanoAntenna European Research Project, U.S. Army International Technology Center-Atlantic - Research Division (USAITC-A), U.S. Office of Naval Research Global - Conference Support Program (ONR-CSP).

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