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Introduction

The eighth edition of the Spintronics symposium of the SPIE conference gathered more than one hundred speakers in San Diego from Sunday, 9 to Thursday, 13 August 2015.

In line with the seven previous editions, the Spintronics symposium, held in the framework of the Optics+Photonics conference, covered most of the hot topics in Spintronics. The conference was an invaluable opportunity for informal and extremely stimulating discussions between experts, which cultivated a friendly atmosphere for networking—exhibiting the dynamism of our field of research.

With 26 oral sessions and one poster session, the symposium gave a broad spectrum of hot topics in Spintronics. Participants discussed recent fundamental results at the forefront of theoretical, experimental, and technological developments. Presenters paid special attention (with 2 or 3 sessions) to 2D transitions-metal dichalcogenides and graphene, spin-ice, magnetic sensors and memories, organic materials, and spin-orbit torque phenomena.

Sessions covered many other active topics, including: spin-coherence, spin pumping, spin injection, and spin dynamics; utra-fast spectroscopy; Rashba, Dresselhaus, and Dzyaloshinskii-Moriya interactions; skyrmions and topological insulators; magnon Hall effect; spin-charge coupling in semiconductors; nanomagnetism; topological phase; Majorana Fermions; superconductivity; voltage control; and multiferroics.

Note that the sessions on spin laser and spin photonics take a growing importance in the framework of the Optics+Photonics SPIE annual meetings.

Finally, we are grateful for the SPIE staff and Program Committee members who did tremendous work. Special thanks to all colleagues and friends who helped organize the focused sessions. We warmly thank all of the authors and speakers for their active participation; they have made this conference a great success.

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Henri-Jean Drouhin
Manijeh Razeghi