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Introduction

The tenth edition of the Spintronics symposium of the SPIE conference gathered more than one hundred and twenty speakers in San Diego, California (United States) from Sunday the 5th of August, to Thursday the 10th of August, 2017.

In line with the nine previous editions, the Spintronics X symposium, held in the framework of the Optics + Photonics SPIE conference, covered most of the hot topics in spintronics. The conference was also an invaluable opportunity for informal and extremely stimulating discussions between experts, as well as for networking in a friendly atmosphere, and witnessing for the dynamism of our field of research.

With 34 oral sessions plus one poster session, the symposium gave a broad spectrum of the most active and emerging fields in spintronics. Recent results at the forefront of theoretical, experimental, and technological developments have been discussed. This year, special emphasis (with three focused sessions) was put on *Neuromorphic and Bio-inspired Computation*, which opened fascinating routes to alternative approaches; and also to *Skyrmions*, a topic showing very rapid progression.

Special attention (with two sessions) was paid to *Topological Matter, Spin-Injection and Spin-Hall Effects, Multiferroics and Transition-Metal-Dichalcogenides Based Spintronics, Topological Insulators; and Rashba Fields, Spin-pumping Effects, and Ultrafast Magnetization Dynamics*.

Many other active domains were covered (with one session), including *Spin Logic*, which channels lab devices to industrial applications, *Spin-Transfer Oscillators* that show impressive progresses (both topics connected to neuromorphic and bio-inspired computation), *Spin LED, Graphene Spintronics, Spin-Orbit Coupling* and *Spin-Orbit Torque* (with application to MRAMs) as well as the new and promising field of *Spin-Acoustics* (first introduced for Spintronics IX), *Spin Optics, THz Spin Dynamics, Spin Coherence, Spin Lasers, Spin Transport, and Spin-Seebeck Effects*.

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

**Jean-Eric Wegrowe
Henri-Jean Drouhin
Manijeh Razeghi
Henri Jaffrès**

