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Quantum Sensing and Nanophotonic Devices V

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Christopher Jelen**
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Introduction

Welcome to the Proceedings of SPIE Quantum Sensing and Nanophotonics V, Vol. 6900.

This volume contains papers from a conference held at the San Jose Convention Center, San Jose, California, USA, as part of the SPIE OPTO2008 and Photonics West Symposium.

This year's quantum sensing and nanophotonics conference, the fifth in the series, had very good representation from a broad range of attendees including industry and academia, enthusiasts and professionals, suppliers and users, and students and teachers. The conference was held over a four-day period, 20–23 January 2008, and featured a broad range of topics, presentations, and events.

The first day of the conference began with three sessions on quantum sources. The 13 papers in these sessions discussed topics that included 1) mid-infrared and long-wavelength-infrared semiconductor lasers including cascade lasers, 2) quantum dot and nano-wire LEDs and lasers, and 3) nanocavity optical sources.

The second day of the conference focused on superlattices and quantum detectors. Fifteen papers were presented in four sessions. Various aspects of superlattices as a potential sensor material for the infrared were discussed, as well as cascade detectors, quantum dot detectors, and detectors based on nitride materials.

The third day of the conference included three sessions focusing on novel sensors including magnetic semiconductors, silicon microspheres, and nanophotonic beam structures. The fourth and last day of the conference included one session on quantum cryptography and imaging and two sessions on single photon counting.

Many individuals and companies contributed in various ways to make this a very successful meeting. The conference committee plays an important role in ensuring the correct technical direction of the meeting and of course, the members play an important role at the conference itself including chairing sessions. Sincere thanks go to Gail Brown, Sarath Gunapala, Mark Itzler, Manijeh Razeghi, Robert Rice, Marija Strojnik-Scholl, and Ferechteh Hosseini Teherani.

Particular thanks are also due to the staff at SPIE who are instrumental in helping organize the conference. But most importantly we must thank the conference authors and attendees who ultimately make this meeting the successful event that it is.

As a final note, the Quantum Sensing and Nanophotonics conference will be on again next year, 24–29 January 2009. Next year we will be back in San Jose, California, at the San Jose Convention Center Photonics West Opto2009 symposium.

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