Preface: the 2014 international workshop on Optical Wave (and Waveguide) Theory and Numerical Modelling

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The XXII International Workshop on Optical Wave_{and Waveguide} Theory and Numerical Modelling (OWTNM 2014) was held in Nice, France, on the campus St-Jean d'Angély on June 27 and 28, 2014. As every even year, it was collocated with the European Conference on Integrated Optics. For this edition only, it was also collocated with the MicroOptics Conference. This collocation explains why the 2014 edition was held at the beginning of the summer rather than at spring as for the previous editions, and in Nice rather than in Marseille where our laboratory is located. Nice is a beautiful city of about 350,000 inhabitants, located in the south of France by the Mediterranean sea, in the French Riviera.

Novel thematics such as metamaterials, plasmonics or nanophotonics appeared during the last OWTNM workshops that led the technical committee to modify in 2013 the name of the workshop from “Optical Waveguide Theory and Numerical Modelling” to “Optical Wave_{and Waveguide} Theory and Numerical Modelling”. This trend is widely confirmed in OWTNM 2014 as it can be seen in the conference program as many groups have emerged in these thematics. It can also be noticed that the resonant light scattering by dielectric or metallic nanoparticles was addressed by several groups. Nevertheless, the waveguide theory and the numerical modelling either in linear or nonlinear cases are still widely covered by many oral and poster presentations. We believe that the OWTNM workshops are the best place to present the latest advances in these thematics.

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Group picture of the OWTNM 2014 participants in front of the St-Jean d'Angély campus building

In Nice, the workshop hosted about 70 participants (73 % researchers, 20 % students and 7 % with commercial affiliation) mostly from Europe and Asia, eight invited speakers and two exhibitors. Thirty talks were scheduled in seven oral sessions: waveguides, metamaterials and non-linear optics, scattering, methods and modelling I and II, Gratings and spectral filtering, photonic devices and applications, plus a joint session with ECIO-MOC. Besides the invited and contributed talks, 41 posters were presented during the poster session. As traditionally in the OWTNM workshops, a large time was dedicated to informal scientific exchanges during the coffee breaks, the meals and the gala dinner. We hope that the participants enjoyed the workshop, their stay in the beautiful city of Nice, and the congress dinner on the beach at the “Castel Plage”, in front of the sea.

For the organization of the workshop, we benefited from the financial support of Phoenix Software, Photon Design, Aix-Marseille Université, Pôle Optitec, Cnano Paca. We thank them for their support. We also thank the CNRS (DR12) for providing us the Web Interface “Azur Colloque” for the registration of the participants, and the Université de Nice Sophia Antipolis for lending us their premises of the St-Jean d'Angély Campus. Staff from the Institut Fresnel helped us in the organization: we especially thank Claire Guéné, Emilie Carlotti and Frédéric Forestier for their essential help. We also thank Evgueni Popov who helped us for the review of the submitted abstracts. Finally we thank the members of the technical committee of OWTNM for their precious advices: Trevor Benson (University of Nottingham, UK), Jiří Čtyroký (Institute of Electronics and Photonics, Czech Republic), Manfred Hammer (University of Twente, The Netherlands), Andrei V. Lavrinenko (COM-DTU, Lyngby Kgs., Denmark), John Love (Australian

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Being guest editors for this special issue of Optical and Quantum Electronic was particularly interesting, and we warmly thank the authors and the reviewers for the interesting scientific discussions and exchanges. Trevor Benson, one of the OQE editor in chief, greatly helped us thanks to his well-advised recommendations. We also greatly appreciated the technical help of the OQE editorial board, especially Neeraja Prabakaran and Pushkaraj Misal.

To conclude, we hope that this special issue of OQE will be scientifically beneficial and we wish you a very pleasant reading.

Logo of OWTNM 2014. The *boat* represented, known as “pointu”, is a traditional fishing boat, the shape of which is well adapted to the sailing on the Mediterranean sea. The *yellow* remind the sun, scarcely missing in Provence, and the *purple* is that of the lavender fields in the hinterland of Nice. (Color figure online)