Editorial

"Quantum interference and cryptographic keys: novel physics and advancing technologies (QUICK)"

This special issue of *The European Physical Journal – D* was organised in conjunction with the conference "Quantum interference and cryptographic keys: novel physics and advancing technologies (QUICK)", that took place in the Institut d'Études Scientifiques de Cargèse from April 7th to 13th, 2001. This conference was organised at the initiative of the European Quantum Communication and Cryptography projects QuComm, S4P, QuiCoV, EQUIS and EQCSPOT, in the framework of the European Union IST/FET/QIPC program.

The conference successfully achieved its goal which was to provide a forum for scientific exchanges for one hundred researchers and students, from academia and industry, working world-wide on the physics, implementations, and applications of quantum communications. The papers in this special issue give an account of some highlights of the conference. They were selected and refereed according to the high quality scientific standards of the European Physical Journal and include topics of the highest contemporary interest in the field, such as practical implementations and security proofs of Quantum Key Distribution, single photon sources, new schemes involving quantum continuous variables and the manipulation of non-classical light.

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We hope this issue will remind all participants of the special atmosphere of creative work and co-operation of the conference, and will give the general readership of EPJD a feeling for the character of this attractive field of research.

Finally, we warmly thank the Cargèse team and the EPJD Editorial Office for their efficient and friendly help with all organisational issues.

Philippe Grangier, John Rarity, Anders Karlsson