



**IEEE Lasers and Electro-Optics Society
French Chapter/Chapitre Français
Seminar announcement/Annonce de séminaire**

Title/Titre : Two-dimensional Photonic Crystal Nanolasers

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Location/Lieu :

Ecole Nationale Supérieure des Télécommunications,
46 rue Barrault, 75634 Paris Cedex 13
Room/Pièce : A 310

Abstract/Résumé :

Efforts toward the smallest possible lasers in the form of the 2-D triangular lattice monopole mode single-cell photonic crystal laser and the high-Q square lattice single-cell photonic crystal laser are summarized. Both forms of photonic crystal lasers operate in the inherent nondegenerate mode that has a node at the center through which electrical current could flow. It turns out that the introduction of a small post in the middle of the resonator does not introduce noticeable optical losses and therefore does not degrade the quality factor of the cavity appreciably. These ultra-small high-Q lasers can be used as the efficient on-demand single photon source for quantum communications. Very low-threshold lasing action from small-area G-point band edge lasers and enhanced light extraction from photonic crystal light emitting devices are also discussed.

For more information, please feel free to contact / Pour tout renseignement complémentaire, merci de contacter :

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