

Prénom : Hugues

Nom : Giovannini

Liste de Publications 2009-2013 :

Revue internationale à comité de lecture uniquement

S. Arhab, G. Soriano, G. Maire, A. Talneau, D. Senteac, P. C. Chaumet, K. Belkebir, H. Giovannini, "Nanometric resolution with far-field optical profilometry", *Phys. Rev. Lett.* **111**, 053902 (2013).

Y. Ruan, Y. P. Bon, P. E. Mudry, G. Maire, P. C. Chaumet, H. Giovannini, K. Belkebir, A. Talneau, B. Wattellier, S. Monneret, A. Sentenac, "Tomographic microscopy with a wavefront sensor", *Opt. Lett.* **37**, pp. 1631-1633 (2012).

S. Arhab, H. Giovannini, K. Belkebir, G. Soriano, "Full polarization optical profilometry", *J. Opt. Soc. of Am. A* **29**, pp. 508-515 (2012).

V. Brissonneau, L. Escoubas, F. Flory, G. Berginc, G. Maire, H. Giovannini, "Laser assisted fabrication of random rough surfaces for optoelectronics", *Appl. Surf. Sci.* **258**, pp. 9171-9174 (2012)

S. Arhab, G. Soriano, K. Belkebir, A. Sentenac, H. Giovannini, "Full wave optical profilometry", *J. Opt. Soc. of Am. A* **28**, pp. 576-580 (2011).

J. Girard, G. Maire, H. Giovannini, A. Talneau, K. Belkebir, P. C. Chaumet, A. Sentenac, "Nanometric resolution using far-field optical tomographic microscopy in the multiple scattering regime", *Phys. Rev. A* **82**, 061801(R) (2010).

O. Haeberlé, K. Belkebir, H. Giovannini, A. Sentenac, "Tomographic Diffractive Microscopy : Basics, Techniques and Perspectives", *Journal of Modern Optics* **57**, pp. 686-699 (2010).

G. Maire, J. Girard, F. Drsek, H. Giovannini, A. Talneau, K. Belkebir, P. C. Chaumet, A. Sentenac, "Experimental inversion of optical diffraction tomography data with a nonlinear algorithm in the multiple scattering regime", *Journal of Modern Optics* **57**, pp. 746-755 (2010).

P. C. Chaumet, A. Sentenac, K. Belkebir, G. Maire, H. Giovannini, "Improving the resolution of grating-assisted optical diffraction tomography using a priori information in the reconstruction procedure", *Journal of Modern Optics* **57**, pp. 798-808 (2010).

G. Maire, F. Drsek, J. Girard, H. Giovannini, A. Talneau, D. Konan, K. Belkebir, P. C. Chaumet, A. Sentenac, "Experimental demonstration of quantitative imaging beyond Abbe's limit with optical diffraction tomography", *Phys. Rev. Lett.* **102**, 213905 (2009).

A.Sentenac, K. Belkebir, H. Giovannini, P. C. Chaumet, "High-Resolution total-internal-reflection fluorescence microscopy using periodically nanostructured glass slides", J. Opt. Soc. of Am. A **26**, pp. 2550-2557 (2009).

N. Sandeau, L. Wawrezinieck, P. Ferrand, H. Giovannini, H. Rigneault, "Increasing the lateral resolution of scanning microscopes by a factor of two using 2-image microscopy", J. of the Eur. Opt. Soc. **4**, 09040 (2009).

Brevets

P. Bon, B. Wattelier, S. Monneret, H ; Giovannini, G. Maire, « Procédé et système d'analyse structurale d'un objet par mesure de front d'onde », Brevet international Phasics (2009).

N. Sandeau, H. Giovannini, H. Rigneault "Dispositif permettant de réduire le volume de détection des microscopes confocaux", Brevet Français CNRS N° FR 49925 (2006) vendu en 2010 et exploité

Liste de Communications 2009-2013 :

Congrès internationaux avec actes uniquement

J. Girard, G. Maire, K. Belkebir, H. Giovannini, P. Chaumet and A. Sentenac, Tomographic diffraction microscopy in the multiple scattering regime, Focus on Microscopy (2011) Konstanz (Germany).

E. Mudry, J. Girard, K. Belkebir, H. Giovannini, P. C. Chaumet and A. Sentenac, Structured illumination microscopy using periodically nanostructured glass slides, Focus on Microscopy (2011) Konstanz (Germany).

E. Mudry, J. Girard, G. Maire, K. Belkebir, P. C. Chaumet, H. Giovannini, A. Talneau, A. Sentenac, Nanometric Resolution using Far-Field Optical Tomographic Microscopy in the Multiple Scattering Regime, Novel Techniques in Microscopy (2011) Monterey.

E. Mudry, J. Girard, K. Belkebir, H. Giovannini, P. C. Chaumet, A. Sentenac, High-Resolution Total-Internal-Reflection Fluorescence Microscopy Using Periodically Nano-Structured Glass Slides, Novel Techniques in Microscopy (2011) Monterey.

E. Le Moal, J. Girard, A. Sentenac, K. Belkebir, P. C. Chaumet, H. Giovannini, S. Monneret, A. Talneau, SPIE Photonics Europe (2010) Brussels.

Y. Ruan, E. Mudry, G. Maire, P. C. Chaumet, H. Giovannini, K. Belkebir, A. Talneau, A. Sentenac, European Optical Society Annual Meeting, (2010) Paris.

J. Girard, G. Maire, H. Giovannini, K. Belkebir, P. Chaumet, A. Talneau, A. Sentenac, "High resolution quantitative imaging with optical diffraction tomography", International Workshop on NanoBioPhotonics (2009) Marseille

H. Giovannini "High Resolution Optical Imaging" Summer school on "Non-conventional imaging and focusing techniques: from acoustics to optics", Cargese France (2009). Conférence invitée.

J. Girard, G. Maire, H. Giovannini, K. Belkebir, P.C. Chaumet, A. Talneau, A. Sentenac, "Optical diffraction tomography with a total internal reflection microscopy configuration", Focus on Microscopy 2009 (2009) Cracovie (Pologne).

A. Sentenac, P.C. Chaumet, G. Maire, K. Belkebir, J. Girard, S. Monneret, H. Giovannini, "Increasing the resolution of total internal fluorescence microscopes with periodic nanostructures", 8th International Photonic and Electromagnetic Crystal Structures Meeting (2009) Sydney.

A. Sentenac, P.C. Chaumet, G. Maire, K. Belkebir, J. Girard, S. Monneret, H. Giovannini, "Periodic nanostructures for focusing light spots beyond the diffraction limit", 8th International Photonic and Electromagnetic Crystal Structures Meeting (2009) Sydney.

Participations GDR, plates formes-technologiques, autres ... :

- Directeur de l'Institut Fresnel (2008-2011) : 75 permanents, 140 personnes
- Coordinateur du programme Européen de Master et de Doctorat Erasmus Mundus Europhotonics depuis 2010
- Organisateur du congrès Optique Marseille 2011 (540 participants, 35 industriels)
- Coordinateur de l'ANR Surmito (programme blanc) 2012-2016
- Représentant de l'AMU au Pôle de Compétitivité Optitec-POP Sud

Collaborations (nationales et/ou internationales) avec d'autres laboratoires de Recherche :

KIT Karlsruhe, ICFO Barcelone, Université de Jena, MIPS Mulhouse, Institut Langevin Paris, LPN Marcoussis, LMPA Paris...