



# Laboratoire d'ingénierie des systèmes de Vers

**CONFÉRENCES INTERNATIONALES  
DEPUIS 2005 - 2012 DE L'ÉQUIPE  
INSTRUMENTATION ET MODÉLISATION  
DES SYSTÈMES ET NANOSYSTÈMES  
AVANCÉS**

Conférences internationales avec comité de lecture et actes 2005 - 2012

---

**2012**

A. Missoffe, L. Chassagne, S. Topsu, P. Ruaux, B. Cagneau, Y. Alayli, Positioning sensor with nanometric performances over centimetric range for nanotechnology sample-holders, proceedings of 2012 International Symposium on Optomechatronic Technology - ISOT, (Paris - France), October 2012.

J. Ghaymouni, B. Cagneau, S. Topsu, Y Yushkevich, L. Chassagne, C. Mayer, A new approach in the creation of pure silver nanoparticles, Poster communication at International Conference on Nanoscience + Technology, (Paris - France), July 2012.

A. Cailean, B. Cagneau, L. Chassagne, S. Topsu, Y. Alayli, J-M. Blosseville, Visible light communications: application to cooperation between vehicles and road infrastructures, proceedings of IEEE Intelligent Vehicle Symposium 2012, pp 1055-1059 (Madrid - Spain) 2012.

## 2011

C. Saad, F. Maroteaux, J-B Millet, Combustion Modelling of a Direct Injection Diesel Engine Using Double Wiebe Functions : Application to HiL Real-Time Simulations. ICE 2011, the International Conference on Engines & Vehicles, September 11-15, 2011, Capri - Naples, Italy.

Y. Guilhem, S. Basseville, G. Cailletaud, F. Curtit, J-M Stéphan, Numerical study of the short crack initiation in polycrystalline aggregates, "Pressure Vessels and Piping" (Baltimore - US), July 2011.

A. Bolopion, B. Cagneau, S. Redon, S. Régnier, Variable gain haptic coupling for molecular simulation, proceedings of WorldHaptics (Istanbul - Turkey), 2011.

## 2010

A. Sinno, P. Ruaux, L. Chassagne, S. Topçu, Y. Alayli, S. Blaize, A. Bruyant, P. Royer, Enlarged sample holder for optical AFM imaging: millimeter scanning with high resolution, Oral communication at SensorsDevices 2010 (Venice - Italy), July 2010.

B. Poyet, S. Ducourtieux, Advances in the development of the LNE metrological atomic force microscope, in Proc. of Euspen, (Delft - Nederlands), June 2010.

B. Poyet, S. Ducourtieux, J. David, L. Lahousse, Advances in the development of the LNE metrological atomic force microscope, Oral communication at SPIE Photonics Europe 2010 conference (Bruxelles - Belgium), 7718-28, April 2010.

S. Topsu, L. Chassagne, A. Sinno, P. Ruaux, Y. Alayli, G. Lerondel, S. Blaize, A.

Bruyant, P. Royer, Millimeter scale topographical image of highly integrated optical structures using enlarged metrological atomic force microscope, Oral communication at SPIE Photonics Europe 2010 conference(Bruxelles - Belgium), 7718-29, April 2010.

## 2009

B. Poyet, S. Ducourtieux, Development of a metrological AFM with minimized Abbe errors, Conference CAFMET (Maroco), 2009.

B. Poyet, S. Ducourtieux, Development of a low rotational errors XYZ flexure stage for the LNE metrological AFM, Conference CAFMET (Maroco), 2009.

J.B. Millet, F. Maroteaux,HCCI Combustion Model by One Step Reaction Function : In View of Assisting the Engine Management Optimization. MCS 6, 2009, Ajaccio, France (14 pages).

J.B. Millet, Fabrice Aubertin, Mathias Lehr, Charbel Saad, Fadila Maroteaux, Air System and Diesel Combustion Model for a 4 Cylinder Engine in Real Time Computing Conditions : Application on a EU5 Personal Car with Diesel Particulate Filter. ICE2009 - the 9th International Conference on Engines for Automobile, September 13-17th, 2009, Capri - Naples, Italy. SAE Paper 2009-24-0136 (12 pages).

Y.Guilhem, G.Cailletaud,S. Basseville,F.Curtit,J-M.Stephan. A study of the cluster effect on fatigue crack initiation, 12th international conference on frature (Ottawa - Canada),12-17 july 2009.

H. prudhon, S. Basseville, L. Sun, G. Cailletaud. Effet de la microstructure sur la propagation des fissures de fretting, dir M. Raous, P. Pasquet M. Rey p167-172, Giens 2009.

EUSPEN 2009 - "Design of the LNE Metrological Atomic Force Microscope" - présentation d'un poster - San-Sebastian - Juin 2009.

A. Sinno, P. Ruaux, L. Chassagne, S. Topçu, Y. Alayli, G. Lerondel, S. Blaize, A. Bruyant, P. Royer. Enlarge sample-holder for optical AFM imaging: millimetre scanning with high resolution, Oral communication at IEEE Eurocon 2009 Conference (Saint-Petersburg – Russia),CD ISBN 978 1-4244-3861-7/09, pp2070-2074,May 2009.

S. Xu, L. Chassagne, S. Topçu, Y. Alayli, P. Juncar Polarimetric Michelson interferometer for sub-nanometric scale positioning control, Oral communication at IEEE Eurocon 2009 Conference (Saint-Petersburg – Russia), CD ISBN 978 1-4244-3861-7/09, pp2029-2033, May 2009.

## 2008

B. Poyet, S. Ducourtieux, J. David, L. Lahousse. Development of a new high guidance quality XYZ flexure scanner for the LNE metrological Atomic Force Microscope, Oral presentation in NANOSCALE2008, Torino (Italy), Septembre 2008.

B. Poyet, S. Ducourtieux, J. David, L. Lahousse, Recent advances for the LNE Metrological Atomic Force Microscope, Poster presentation in NANOSCALE2008, Torino (Italy), Septembre 2008.

D. Ameur, C. Croizet, F. Maroteaux, R. Gatignol, Simulation of Pressure and Temperature Driven Flows in Microchannels, AIP Conf. Proc. 1084, pp. 1129-1134 (2008).

B. Poyet, S. Ducourtieux, J. David, L. Lahousse, Development of a new XY translation flexure stage with high guidance quality for the LNE Metrological Atomic Force Microscope, Poster presentation in EUSPEN, Zurich (Switzerland), may 2008.

J.P. Loisel, S. Topçu, L. Chassagne, Y. Alayli, P.R. Dahoo, T. Badr, P. Juncar Efficient diode-pumped intracavity frequency-doubled CW Nd: YLF laser emitting at 656 nm for a silver atom optical clock, Poster at SPIE Photonics West, (San Jose – California - USA), January 2008.

J.P. Loisel, S. Topçu, L. Chassagne, Y. Alayli, P.R. Dahoo, T. Badr, P. Juncar. Efficient diode-pumped intracavity frequency-doubled CW Nd: YLF laser emitting at 656 nm for a silver atom optical clock, Oral communication at SPIE Photonics Europe, (Strasbourg – USA), April 2008.

S. Xu, K. Ouedraogo, L. Chassagne, S. Topsu, Y. Alayli /Sub-nanometric scale position control sensor for nanometrological applications, Oral communication at RMO 2008, 20<sup>th</sup> International Metrology Symposium, (Cavtat-Dubrovnik –Croatia), November 2008.

## 2007

A. Sinno, L. Chassagne, P. Ruaux, S. Topçu, Y. Alayli, G. Lerondel, P. Royer, S. Blaize, I. Stefanon. Platine porte-échantillon à course millimétrique pour la microscopie en champ proche, Poster au 10° Forum des microscopies à sondes locales, (Troyes - France), March 2007.

M. Wakim, L. Chassagne, S. Topçu, Y. Alayli, P. Juncar, J.P. Wallerand, G. Genevès Novel concept of interferometric control of the moving coil in the watt balance, SPIE, International Congress on Optics and Optoelectronics (Prague - Czech Republic), Vol 6585, ISBN n° 978-0-8194-6729-4, April 2007.

K. Ouedraogo, S. Topçu, L. Chassagne, P. Juncar, Y. Alayli Absolute method for an optical measurement of the earth gravitational axis, SPIE, International Congress on Optics and Optoelectronics (Prague - Czech Republic), Vol 6585, ISBN n° 978-0-8194-6729-4, April 2007.

K. Ouedraogo, S. Topçu, L. Chassagne, Y. Alayli An improved miniature wavelength meter based on polarisation state measurements, SPIE, International Congress on Optics and Optoelectronics (Prague - Czech Republic), Vol 6585, ISBN n° 978-0-8194-6729-4, April 2007.

A. Sinno, P. Ruaux, L. Chassagne, S. Topcu, Y. Alayli, G. Lerondel, P. Royer, S. Blaize, I. Stefanon, Large area coverage sample-holder unit for enhanced near-field microscopy applications, Proc. ISOT 6716-OP8, EPFL-Suisse, Oct 2007.

M. Wakim, L. Chassagne, S. Topçu, Y. Alayli, P. Juncar, G. Genevès, "Mesure et contrôle de position et de vitesse à l'échelle nanométrique : application à la balance du watt ", 8ème Colloque International francophone, Méthodes et Techniques Optiques pour l'Industrie SFO-CMOI, Arcachon-France, Nov 2007.

## 2006

J.B. Millet, F. Maroteaux, M. Sorine, A Reduced Model of HCCI Combustion in View of Application to Model Based Engine Control Systems, International Congress, SAE Paper 2006-01-3297, Toronto, Canada (2006).

K. Ouedraogo, S. Topçu, L. Chassagne, Y. Alayli, Lambdamètre polarimétrique, Oral communication at 7° Colloque de Contrôle et mesures Optiques pour l'Industrie, (Mulhouse - France), November 2006.

M. Wakim, L. Chassagne, S. Topçu, Y. Alayli, Système de déplacement deux axes dédié au applications de nano-déplacements, Oral communication at 7° Colloque de Contrôle et mesures Optiques pour l'Industrie, (Mulhouse - France), November 2006.

J.P.Wallerand, M.Himbert, S.Topcu, Y.Alayli, M.Deneva, M.Nenchev, "Invited paper : Two-wavelength CW diode-pumped Yb- doped crystal and red semiconductor lasers: techniques of realization and peculiarities of the operation", Proc. International Conference on Lasers and Informational Technologies, ILLA/LTL, pp 133-145, Oct 2006.

## 2005

L. Chassagne, S. Topçu, Y. Alayli, P. Juncar, G. Lerondel, S. Blaize, A. Bruyant, I. Stefanon, P. Royer, Development of a long range nanometric precision stage for near field characterization, Poster at 5th International Conference European Society for Precision Engineering and Nanotechnology (EUSPEN) (Montpellier - France), May 2005.

L. Chassagne, S. Topçu, Y. Alayli, P. Juncar, G. Lerondel, S. Blaize, A. Bruyant, I. Stefanon, P. Royer. Near field characterization of millimeter long wave guiding structures using a high accuracy optoelectronic control system holding the sample, Oral communication at SPIE's International Symposium Optical Metrology 2005 (Munich - Germany), vol 5858, 13-17 June 2005.