Agostino OCCHICONE

Personal Data

Date of Birth: 0[redacted]

Place of Birth: [redacted]

Home Address: [redacted]

Phone: +[redacted]

e-mail: [redacted]

[redacted]

[redacted]

Education

Ph.D., Theoretical and Applied Mechanics, University of Rome "La Sapienza", Nov 2014 – Oct 2017

Thesis Topic: *Advanced Optical Techniques for μ-Fluid Dynamics*
Advisor: *Prof. Francesco MICHELOTTI*

M.Sc., Nanotechnology Engineering, University of Rome "La Sapienza", Sep 2011 – Jul 2014

Thesis Topic: *Sviluppo di una piattaforma per la rivelazione di molecole biologiche basata su bio-chip a cristallo fotonico*
Advisor: *Prof. Francesco MICHELOTTI*

B.Sc., Science and Engineering of Materials, University of Naples "Federico II", Sep 2007 – Feb 2011

Thesis Topic: *Calcoli da principi primi per lo studio degli effetti di bordo sulle proprietà strutturali ed elettroniche di nanostrisce di grafene*
Advisors: *Prof. Domenico NINNO & Giovanni CANTELE*

Publications

1. Sinibaldi, A. Fieramosca, N. Danz, P. Munzert, **A. Occhicone**, C. Barolo, and F. Michelotti, *Effects of Reabsorption due to Surface Concentration in Highly Resonant Photonic Crystal Fluorescence Biosensors*, J. Phys. Chem. C, Just Accepted (2018).
2. Sinibaldi, **A. Occhicone**, P. Munzert, N. Danz, F. Sonntag, and F. Michelotti, *Label-Free Monitoring of Human IgG/Anti-IgG Recognition Using Bloch Surface Waves on 1D Photonic Crystals*, Biosensors, 8(2018).
3. Sinibaldi, C. Sampaoli, N. Danz, P. Munzert, F. Sonntag, F. Centola, **A. Occhicone**, E. Tremante, P. Giacomini and F. Michelotti, *Bloch Surface Waves*

[redacted]

Biosensors for High Sensitivity Detection of Soluble ERBB2 in a Complex Biological Environment, Biosensors, 7(2017), 33.

4. Sinibaldi, C. Sampaoli, P. Munzert, L. Sibilio, N. Danz, F. Sonntag, **A. Occhicone**, E. Tremante, P. Giacomini, and F. Michelotti, *Detection of soluble ERBB2 in breast cancer cell lysates using a combined label-free/fluorescence platform based on Bloch surface waves*, Biosens. Bioelectron., 92(2017), 125-130.
5. **Occhicone**, A. Sinibaldi, F. Sonntag, P. Munzert, N. Danz and F. Michelotti, *A novel technique based on Bloch surface waves sustained by one-dimensional photonic crystals to probe mass transport in a microfluidic channel*, Sens. Act. B: Chem., 247(2017), 532-539.
6. Anopchenko, **A. Occhicone**, R. Rizzo, A. Sinibaldi, G. Figliozzi, N. Danz, P. Munzert, F. Michelotti, *Effect of thickness disorder on the performance of photonic crystal surface wave sensors*, Optics express, 24(2016), 7728-7742.
7. F. Michelotti, S. Schmieder, A. Anopchenko, P. Munzert, A. Sinibaldi, R. Chandrawati, S. Rana, F. Sonntag, **A. Occhicone**, L. Napione, M. M. Stevens, E. Maillart, F. E. Hibti, C. Frydman, N. Danz, *Label-free and fluorescence biosensing platform using one-dimensional photonic crystal chips*, Proc. SPIE, Integrated Optics: Devices, Materials, and Technologies XX, 2016.
8. Sinibaldi, N. Danz, A. Anopchenko, P. Munzert, S. Schmieder, R. Chandrawati, R. Rizzo, S. Rana, F. Sonntag, **A. Occhicone**, L. Napione, S. De Panfilis, M. M. Stevens, F. Michelotti, *Label-Free Detection of Tumor Angiogenesis Biomarker Angiopoietin 2 Using Bloch Surface Waves on One Dimensional Photonic Crystals*, Journal of Lightwave Technology, 33(2015), 3385-3393.

Seminars and Courses

Microfluidic generation and optical manipulation of ultra-deformable droplets. Prof. Guido Bolognesi, Department of Chemistry, Imperial College London.

The Long and Winding Road to Tissue on a Chip. Dr. Mohammad F. Kiani, Professor, Department of Mechanical Engineering, Temple University, Philadelphia, PA.

Optical Flow Problems in Global Flow Diagnostics. Prof. Tianshu Liu, Department of Mechanical and Aerospace Engineering, Western Michigan University, Kalamazoo, MI, USA.

Brevetti per invenzione industriale: Requisiti e strategie. Fabrizio Frezza, Dipartimento di Ingegneria dell'Informazione, Elettronica e Telecomunicazioni (DIET).

UQ in Computational Sciences and Engineering. Prof. Omar Knio, Deputy Director, KAUST Strategic Research Initiative, Uncertainty Quantification Center, Professor of Applied Mathematics and Computational Science.

Corso LabView Core 1.

Corso Pratico Introduttivo su CompactDAQ e CompactRIO.

Corso di Meccanica Statistica. Prof. Emilio Cirillo, Dip. SBAI, Univ. Roma "La Sapienza".

Cardio Vascular Fluid Dynamics. Dr. Mohammad F. Kiani, Professor, Department of Mechanical Engineering, Temple University, Philadelphia, PA.

Analisi Funzionale. Prof. Andrea Dall'Aglio, Dip. Metodi e Modelli Matematici, Univ. Roma "La Sapienza".

Conferences

EFMC12, *Vienna (Au), September 9-13, 2018.*

Flow 17, Paris (FR), July 3-5, 2017.

Cavitation Modeling and Experiments, Preci (IT), Luglio 4-7, 2016.

School of Photonics 2016: Plasmonics and Nano-Optics, Cortona (IT), Luglio 10-14, 2016.

Nanoinnovation, Roma (IT), Settembre 20-23, 2016.

Posters & Talk

Talk: EFMC12, Vienna (Au), September 9-13, 2018: *"*Bloch Surface Waves Probe of Pressure Shock Waves", ***A. Occhicone****, G. Sinibaldi, C.M. Casciola, and F. Michelotti.*

Poster: **"Flow 17",** Paris (FR), July 3-5, 2017**:** *"Laser induced cavitation and bubble dynamics", G. Sinibaldi,* ***A. Occhicone****, F. Pereira, D. Caprini, M. Chinappi, L. Marino, F. Michelotti and C.M. Casciola.*

Poster: **"Flow 17",** Paris (FR), July 3-5, 2017**:** *"A novel technique based on Bloch surface waves sustained by one-dimensional photonic crystals to probe mass transport in a microfluidic channel",* ***A. Occhicone****, A. Sinibaldi, F. Sonntag, P. Munzert, N. Danz and F. Michelotti.*

Poster: **"Cavitation Modeling and Experiments",** Preci (IT), July 4-7, 2016: *"Advanced Optical Techniques for the Study of μ-Fluidodynamic Phenomena",* ***A.***

***Occhicone**, A. Sinibaldi, G. Sinibaldi, A. Anopchenko, D. Caprini, N. Danz, C. M. Casciola and F. Michelotti.*

Poster: **"School of Photonics 2016: Plasmonics and Nano-Optics",** Cortona (IT), Luglio 10-14, 2016: *"Monitoring of Micro Fluidic Flow Conditions by Bloch Surface Waves", **A. Occhicone**, A. Sinibaldi, A. Anopchenko, and F. Michelotti.*

Poster: **"WaterX: exotic properties of water under extreme conditions",** Nice (Fr), Luglio, 13-16 2016: *"Pressure field induced by a laser-generated cavitation bubble", G. Sinibaldi, F. Pereira, D. Caprini, **A. Occhicone**, M. Chinappi, B. F. Jacob, L. Marino, F. Di Feleice, F. Michelotti, C. M. Casciola.*

Other Activities

Vincitore assegno (di tipo A) per lo svolgimento di attività didattiche propedeutiche o di recupero in Fisica per le esigenze dei corsi di studio della Facoltà di Ingegneria Civile e Industriale per l'a.a. 2015.

Vincitore assegno (di tipo A) per lo svolgimento di attività didattiche propedeutiche o di recupero in Fisica per le esigenze dei corsi di studio della Facoltà di Ingegneria Civile e Industriale per l'a.a. 2016-2017.

Data 30/10/2018 Firma

[redacted]