

Dam-Bé Lardja DOUTI

Born 02/03/1987

Nationality: Togolese

e-mail: dambe.douti@gmail.com**Profile**

Lasers, Laser-matter interactions, Nonlinear optics

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References**Pr. Mireille Commandre :** mireille.commandre@fresnel.fr**Dr. Laurent Gallais :** Laurent.gallais@fresnel.fr**Dr. Ghaya Baili :** ghaya.baili@thalesgroup.com**Education**

Sept. 2015

PhD in Physics at Institut FRESNEL, Aix-Marseille University (France)
Institut FRESNEL, Marseille (France) – (Defense the 05th November)

Oct. 2011

Master's degree in engineering: Optronics.
École Polytechnique de l'Université Paris-Sud XI, Orsay (France).

Oct. 2011

Master's degree in optics: Image science, Bio photonics and Lasers.
Institut d'Optique Graduate School – Université Paris-Sud XI, Palaiseau (France)

June 2008

Bachelor in physics.
*University of Lomé, Lomé (Togo).***Research activities**

Oct. 2012 – Sept. 2015

PhD Student in laser-matter interaction
Study of the physics of subpicosecond laser-matter interactions applied to optical thin films laser damage. (*PhD defense the 05th November*)
Supervisors: Laurent Gallais – laurent.gallais@fresnel.fr
Mireille Commandré – mireille.commandre@fresnel.fr

April – July 2012

Research Engineer internship in the Institut d'Electronique Fondamentale (IEF), University of Paris XI (France)
Optimization of nonlinear optics in slot photonic crystal waveguides: theory and simulations (MIT Photonic Bands, MATLAB).
Supervisor: Eric Cassan – eric.cassan@u-psud.fr

March – September 2011

R&D Engineer internship at Thales Research & Technology (France)
Development of a fiber pulsed laser for optical sampling: study, development and optimization.
Supervisor: Ghaya Baili – ghaya.baili@thalesgroup.com

May – August 2010

Application Engineer internship at Eotech SA, Marcousis (France)
Conception and development of an interferometric system for large optical surface profilometry: in charge of the conception (Computer Aided Design), the prototyping, the tests and the project management with the client.
Supervisor: Gabriel Koeller – Gabriel.koeller@eotech.fr

July – August 2009

Technical operator at 3S Photonics, Nozay (France)
Characterization (optical and mechanical) of Bragg fiber filters for telecommunication purposes.

Technical skills

Languages	French (mother tongue), English (Fluent), Spanish (basic) <i>Operating systems:</i> Linux, Windows
Programming	<i>Languages and scripts:</i> Labview, Matlab, C, Fortran, Scheme, Python, MPI, VHDL <i>Applications:</i> Zemax, MIT Photonics Bands, ImageJ, SolidWorks

Scientific publications and conferences

Article published in peer-reviewed journal

- 1 M. Mende, I. Balasa, H. Ehlers, D. Ristau, D. L. Douti, L. Gallais, M. Commandré. Correlation of Optical Properties and Laser Damage Resistance for Ion Beam Sputtered Al₂O₃/AlF₃ and Al₂O₃/SiO₂ Mixture Coatings. *Applied Optics*, 53, 4 (2014).
- 2 D. L. Douti, L. Gallais, M. Commandré. Laser-induced damage of optical thin films submitted to 343, 515 and 1030nm multiple subpicosecond pulses. *Optical Engineering*, 53, 12 (2014).
- 3 L. Gallais, D. L. Douti, M. Commandré, G. Bataviciute, E. Pupka, M. Ščiuka, L. Smalakys, A. Melninkaitis, V. Sirutkaitis. Wavelength dependence of femtosecond laser-induced damage threshold of optical materials. *Journal of Applied Physics*, 117,22 (2015).
- 4 D. L. Douti, S. Aknoun, S. Monneret, C. Hecquet, M. Commandré, L. Gallais. Quantitative phase imaging applied to laser damage detection and analysis. *Applied Optics*, 54, 8375-8382 (2015).

In preparation

- 5 D. L. Douti, L. Gallais, C. Hecquet, T. Bégou, M. Commandré. Sub-picosecond laser damage resistance of optical thin films made by reactive magnetron sputtering.

International conferences proceedings

- 1 D. L. Douti, S. Aknoun, S. Monneret, C. Hecquet, M. Commandré, L. Gallais. In line quantitative phase imaging for damage detection and analysis. In *SPIE/Laser Damage Symposium Vol. 9237* (Boulder, USA Novembre 2014).
- 2 D. L. Douti, C. Hecquet, T. Bégou, M. Commandré, L. Gallais. UV to IR laser damage of Magnetron Sputtering films submitted to multiple sub-picosecond pulses. In *SPIE/Laser Damage Symposium Vol. 9237* (Boulder, USA Novembre 2014)

Other conferences.

- 3 D. L. Douti, M. Chrayteh, S. Monneret, M. Commandré, L. Gallais. Analysis of energy deposition and damage mechanisms in single layers of HfO₂ and Nb₂O₅ submitted to 500fs pulses. In *SPIE/Laser Damage Symposium* (Boulder, USA September 2015).
- 4 Dam Bé L. Douti, Laurent Gallais, Christophe Hecquet, Thomas Bégou, Julien Lumeau, Mireille Commandré. In *SPIE/Optical Systems Design (Iena, Germany September 2015)*
- 5 L. Gallais, D. L. Douti, S. Monneret et M. Commandré. Laser damage measurement techniques for the femtosecond regime. In *Pacific Rim Laser Damage 2015: Optical Materials for High Power Lasers* (Shangai, China May 2015); *Invited*.
- 6 D. L. Douti, L. Gallais and M. Commandre. Parametric Study of subpicosecond laser induced damage threshold in optical thin films: influence of number of pulses and photon energy. In *ICUIL Conference* (Goa, India October 2014).
- 7 L. Gallais, D. L. Douti, F. Lemarchand, M. Commandré, G. Batavičiūtė, E. Pupka, M. Ščiuka, L. Smalakys, A. Melninkaitis, V. Sirutkaitis. Dependence of fs laser resistance of optical materials with wavelength. In *SPIE/Laser Damage Symposium - Best poster paper*. (Boulder, USA September 2013).
- 8 M. Mende, I. Balasa, H. Ehlers, D. Ristau, D. L. Douti, L. Gallais, M. Commandré. Correlation of Optical Properties and Laser Damage Resistance for Ion Beam Sputtered Al₂O₃/AlF₃ and Al₂O₃/SiO₂ Mixture Coatings. *Optical Interference Coatings* (Whistler, Canada June 2013).

National conferences.

- 9 D. L. Douti, L. Gallais and M. Commandre. Résistance au flux laser en régime ultracourt de couches minces d'oxydes, de fluorures et de mélanges d'oxy-fluorures. *Coloq'Paris* (Paris, France July 2013)