> Doctorat en Sciences de l'ingénieur – Aérospatiale et Mécanique

COLLET Arnaud : Numerical modeling of the cardiac mechano-electric feedback within a thermo-electro-mechanical framework. Study of its consequences on arrhythmogenesis (Promoteur : Pierre DAUBY)

DETROUX Thibaut : Performance and Robustness of Nonlinear Systems Using Bifurcation Analysis (Promoteur : Gaëtan KERSCHEN)

GRELET Vincent : Rankine cycle based waste heat recovery system applied to heavy duty vehicles: topological optimization and model based control (Promoteur : Vincent LEMORT)

GUYOT Yann : A multiphysics multiscale computational framework for the simulation of perfusion bioreactor processes in bone tissue engineering (Promoteur : Liesbet GERIS)

KERKHOFS Johan : Chondrogenic differentiation in endochondral ossification: a computational modelling approach (Promoteur : Liesbet GERIS)

LUCAS Vincent : Stochastic multi-scale modelling of MEMS (Promoteur : Ludovic NOELS)

NSIAMPA NDOMPETELO : Numerical Assessment of Non-Lethal Projectile Thoracic Impacts (Promoteur : Jean-Philippe PONTHOT)

NYSSEN Florence : Numerical Modeling and Experimental Identification of Mistuned Multi-Stage Bladed Assemblies (Promoteur : Jean-Claude GOLINVAL)

OUKARA Amar : Assessment of Non-Lethal Projectile Head Impacts (Promoteur : Jean-Philippe PONTHOT)

PIRONET Antoine : Model-based prediction of the response to vascular filling therapy (Promoteur : Thomas DESAIVE)

SAKRAKER Isil : Aerothermodynamics of Pre-Flight and In-Flight Testing Methodologies for Atmospheric Entry Probes (Promoteur : Gaëtan KERSCHEN)

TROMME Emmanuel : Structural optimization of flexible components within a multibody dynamics approach (Promoteur : Pierre DUYSINX)

BLAISE Nicolas : Principal static wind loads within a rigorous methodology to the envelope reconstruction problem (Promoteur : Vincent DENOEL)

> Doctorat en Sciences de l'ingénieur – Architecture, génie civil et géologie

DIEUDONNE Anne-Catherine : Hydromechanical behaviour of compacted bentonite: from micro-scale analysis to macro-scale modelling (Promoteur : Robert CHARLIER)

FERNANDEZ DE VERA Natalia : Monitoring water and pollutant leaching at an industrial site using geophysics and a vadose zone monitoring system (Promoteur : Serge BROUYÈRE)

GUZMAN INOSTROZA Carlos Felipe : Experimental and Numerical Characterization of Damage and Application to Incremental Forming (Promoteur : Anne HABRAKEN)

HETHARIA Wolter Roberth : Hull Optimization of Medium-Speed Monohull Passenger Ferry (Promoteur : Philippe RIGO)

HUYNEN Alexandre : Eulerian Formulation of Spatially Constrained Elastic Rods (Promoteur : Vincent DENOEL)

NEIRA TORRES Ingrid : Modeling of cooling and thermal treatment of bimetallic rolling mill rolls (Promoteur : Anne HABRAKEN)

PARDOEN Benoît : Hydro-mechanical analysis of the fracturing induced by the excavation of nuclear waste repository galleries using shear banding (Promoteur : Frédéric COLLIN)

SALEHNIA Fatemeh : From some obscurity to clarity in Boom clay behavior: Analysis of its coupled hydro-mechanical response in the presence of strain localization (Promoteur : Robert CHARLIER)

VELOSA DE SENA José : Advanced numerical framework to simulate Incremental Forming Processes (Promoteur : Anne HABRAKEN)

> Doctorat en Sciences de l'ingénieur – Chimie appliquée

ESKENAZI David : Développement de procédés sol-gel de fabrication de matériaux de batteries (Promoteur : Benoît HEINRICHS)

OLU Pierre-Yves : Etude de l'anode pour la pile à combustible directe aux borohydrures (Promoteur : Nathalie JOB)

PAMBOU Yvon-Bert : Influence du conditionnement et de la déshydratation mécanique sur le séchage de boues d'épuration (Promoteur : Angélique LEONARD)

> Doctorat en Sciences de l'ingénieur – Electricité, électronique et informatique

BESSONOV Kyrylo : From Statistical to Biological Interactions via Omics Integration (Promoteur : Kristel VAN STEEN)

DETHIER Julie : The role of feedback in maintaining robustness and modulation across scales : Insights from cellular and network neurophysiology (Promoteur : Rodolphe SEPULCHRE)

GUILLAUME Bryan : Accurate Non-Iterative Modelling and Inference of Longitudinal Neuroimaging Data (Promoteur : Christophe PHILLIPS)

JOHNEN Amaury : Indirect Quadrangular Mesh Generation and Validation of Curved Finite Elements (Promoteur : Christophe GEUZAINE)

LENS Stéphane : Efficient and Precise Trajectory Planning for Nonholonomic Mobile Robots (Promoteur : Bernard BOIGELOT)

LIEGEOIS Raphaël : Dynamical modelling from resting-state brain imaging (Promoteur : Rodolphe SEPULCHRE)

MARSIC Nicolas : Efficient methods for large-scale time-harmonic wave simulations (Promoteur : Christophe GEUZAINE)

MATHIEU Sébastien : Flexibility services in the electrical system (Promoteur : Quentin LOUVEAUX)

MÖLLENHOFF Klaus : Novel methods for the detection of functional brain activity using 170 MRI (Promoteur : Christophe PHILLIPS)

PINEDA SAN JUAN Silvia : Statistical methods for the integration analysis of omics data (genomics, epigenomics and transcriptomics) : An application to bladder cancer. (Promoteur : Kristel VAN STEEN)

PLUMIER Frédéric : Co-simulation of Electromagnetic Transients and Phasor Models of Electric Power Systems (Promoteur : Christophe GEUZAINE)

VAN LISHOUT François : An efficient and flexible software tool for genome-wide association interaction studies (Promoteur : Kristel VAN STEEN)

> Doctorat en Art de bâtir et urbanisme

AOUN Oula : Urban Megaprojects-based Approach in Urban Planning: From Isolated Objects to Shaping the City. The Case of Dubai (Promoteur : Jacques TELLER)

RUELLE Christine : Vers une transition durable des quartiers urbains. Formulation d'un modèle d'innovation applicable à la politique des quartiers (Promoteur : Jacques TELLER)