

Permanent Staff of the Faculty

Department of Aerospace & Mechanics								
	Statut	Surname	Name	Informations	Web	Key words		Mail (@uliege.be)
	Logisticien de recherche principal	Andrianne	Thomas	Experimental aerodynamics: analysis of unsteady incompressible flows around bluff-bodies Experimental aeroelasticity: linear and non-linear aeroelastic phenomena Integration of experimental and numerical approaches in unsteady aerodynamics and aeroelasticity Applications in subsonic flows: drones, wind energy, civil engineering, sport aerodynamics.	www.wind.ulg.ac.be			T.Andrianne
	Professor	Arnst	Maarten	The group of Prof. Maarten Arnst is interested in uncertainty quantification and stochastic modeling, specifically, in the characterization, propagation, and analysis of uncertainties in applications in mechanics and physics.		analyse stochastique, turbomachine bladed disk, manufacturing tolerance, metal forming, MEMS, satellite orbital lifetime,	polynomial chaos expansion, Floquet transformation, Monte Carlo, homogenization technique	maarten.arnst
	Associate professor	Béchet	Eric	Computer aided design, mesh generation, finite element method, piezoelectric materials, X-FEM, Level sets, structured materials, computer tomography, simulation of wave propagation in mechanics	http://www.cgeo.ulg.ac.be/	Usinage, imagerie tomographie, composite, foamed nanocomposite material, mesh generator, piezoelectric material	EF, XFEM, Levelset, periodic boundary condition,	Eric.Bechet
	Chef de travaux	Boman	Romain	Numerical modelling of large deformations of solids (forming, crash, impact, biomechanics), design of simulation software, integration of heterogeneous computational codes for multiphysics applications, high performance computing, Arbitrary Lagrangian Eulerian formalism, mesh generation.				R.Boman
	Professor	Bruls	Olivier	Modelling, simulation, optimization and control methods for mechanisms and articulated systems. Numerical methods for the dynamic analysis of mechatronic systems. Applications in robotics, deployable space structures and biomechanics.		système multicorps, mouvement, vibrations, dynamique, modélisation, contrôle, optimisation, méthode des éléments finis, réduction de modèle, analyse du mouvement humain.	multibody system, motion, vibration, dynamics, modelling, control, optimization, finite element method, model order reduction, human motion analysis.	O.Bruls
	Associate professor	Bruyneel	Michaël	Optimization of composites, especially the definition of new methodologies and new optimization algorithms (in collaboration with P. Duysinx). Concerning the damage analysis of composites, validation of models at the different levels of the pyramid of tests up to the industrial applications (in collaboration with JP Ponthot).		Damage analysis, optimization of composite structures, airbus, automotive, VIRTUAL PROCESS CHAIN ,	simulation supported by testing, Ladeveze fracture model, level-sets, Fast Marching Method	Michael.Bruyneel
	Associate professor	Collette	Christophe	Strategies and instrumentation for vibration control: - Low-frequency seismic isolation of gravitational wave detectors - Vibration damping of aerospace structures - Nano-positioning system for tomography experiments - Active isolation from launcher disturbances	http://homepages.ulb.ac.be/~c.collette/	Contrôle actif Mécatronique Transducteurs Vibrations des structures	Active control Mechatronics Transducers Structural vibrations	
	Associate professor	de Pelsmaecker	Georges			Sustainable engineering processes, Automotive, Home Appliance, Nuclear, Technical service		Georges.dePelsmaecker
	Professor	Delhez	Eric	Mathematical and numerical modelling of marine hydrodynamics. Diagnose of transport models. Hydrodynamics of coastal waters. Sediment dynamics Coupled biological modeling.		Water renewal Scheldt	wave-like problems, finite volume, finite elements, optimization	E.Delhez
	Professor	Dewallef	Pierre			conversion d'énergie pour un dévelop.durable, carburant alternatif, On-Line Aircraft Engine Diagnostic, Aircraft Engine performance, biomass plant, co generation, high temperature heat pump, renewable and sustainable energy	optimisation réseaux de distribution de chaleur, Organic Rankine Cycle -> energy plant	P.Dewallef

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	Professor	Dimitriadis	Grigorios	Linear and nonlinear aeroelasticity research with applications to aircraft, helicopters, drones, wind turbines and civil engineering structures. Experimental steady and unsteady aerodynamics with applications to aircraft design. Nonlinear dynamics, bifurcation analysis, vibration testing.		Écoulement hélicoptère, aérodynamique hypersonique, instabilité aéroélastique, flapping flight, Unsteady flow, Dry galloping of cables, Bridge stay cables	Experimental, Stall flutter model; Wind tunnel; Vortex lattice; Control volume approach; PIV Particle Image Velocimetry (PIV) measurements. ;	gdimitriadis
	Professor	Duysinx	Pierre	Main research topics: Computer Aided Design of vehicles and clean propulsion systems. Top expertise in structural optimization, topology optimization, shape optimization and composite optimization.	www.ingveh.ulg.ac.be	Optimisation des structures. Optimisation Topologique. Systèmes Multicorps Flexibles. Microstructure. Véhicules électriques et hybrides. Batterie et stockage de l'énergie. Pile à Combustible. Fabrication par Addition de Matière. Advanced Driver Assistance Systems (ADAS).	Structural Optimization, EF, XFEM, Level Sets, MEMS, MBS, Microstructure, Topology, Shape, Sequential Convex Programming, Eco Design, CONLIN, MMA, EV, HEV, Supercaps, Functional safety analysis, ADAS.	P.Duysinx
	Professor	Geris	Liesbet	The biomechanics research unit develops computer models of bone regeneration and tissue engineering processes, ranging from the intracellular level (gene/protein regulatory networks) to the tissue level (neotissue formation in bioreactor culture and fracture healing).	http://www.biomech.ulg.ac.be	Bone regeneration, biomimetic production processes in tissue engineering, models of bone tissue, Biomimetic process design for tissue regeneration	modélisation cellulaire, gene network,	Liesbet.Geris
	Associate professor	Gilet	Tristan	The Microfluidics Lab performs experimental research on capillary-based mechanisms (incl. pumping, adhesion, drop impacts, liquid break-up). Applications range from labs-on-chip to bioinspired microhandling and to various phenomena induced by raindrop impacts."	http://labos.ulg.ac.be/microfluidics/	propagation par la pluie des maladies foliaires, Adhésion capillaire modulable d'inspiration biomimétique	adhésion capillaire, microfluidique, , microfluidique, biomimétisme, micromanipulation	Tristan.Gilet
	Professor	Golinval	Jean-Claude	The "Vibrations and Structure Identification" research unit carries out research in the field of structural dynamics, mechanical vibrations and rotor dynamics. Research efforts focus more particularly on the following topics: • Vibration testing and experimental modal analysis. • Identification of mechanical structures. • Finite element model updating. • Damage detection and structural health monitoring of engineering structures using vibration measurements.		disques aubagés désaccordés dans les moteurs d'avion, capteur piézo électrique	Analyse modale expérimentale, Systèmes multi-étages, Balistique, capteur piezo électrique	JC.Golinval
	Associate professor	Hillewaert	Koen					Koen.Hillewaert
	Professor	Kerschen	Gaëtan	Research activities at S3L encompass the mechanics of (aero)space structures. They are centered around three main themes namely vibrations, thermal control and orbits of satellites.		Design and test satellite, additive layer manufacturing in space application, Testing procedure for aerospace structures, Nonlinear dynamics, Vibration absorber, nanosatellites, orbital rendez-vous	EF thermique, réduction de modèle, radiative heat transfer, vibrations, non-linéarité, identification, Limit cycle oscillations, Bifurcation tracking	G.Kerschen
	Professor	Lemort	Vincent	On the basis of numerical and experimental approaches, my work aims at developing efficient thermal energy systems (for buildings, transportation and industry sectors) by investigating both their design and control.		Dynamic Building Energy Monitoring, performances énérg. // comportement habitants, pompe à chaleur, production décentralisée d'électricité, thermal energy storage, Design + control of (micro) solar power plants, biomass, air conditionné, véhicule hybride, truck diesel, refroidissement d'un satellite de télécommunication, Heating and cooling technique, architecture et régulation des cycles organiques de Rankine	organic rankine cycle, volumetric expander, CHP, waste heat recovery, heat exchanger, compresseur à spirales, Fault detection and diagnosis, Focus on building	Vincent.Lemort
	Associate professor	Loicq	Jérôme		http://www.csl.ulg.ac.be			J.Loicq
	Associate professor	Marchal	Yves	Development of modern manufacturing methodologies such as innovative forming, welding and machining processes suitable for advanced materials, additive manufacturing processes, composites technologies. The physics of these processes and their effect on the properties of the materials are investigated, as well as their industrialization and cost analysis.	https://www.linkedin.com/in/marchal-yves-4a203918/	Fabrication – Procédés – Matériaux – Propriétés - Industrialisation	Manufacturing – Processes – Materials – Properties – Industrialization	

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	Associate professor	Mertens	Anne		http://www.facsu.ulg.ac.be/cms/c_2467479/fr/fsa-repertoire-personnel?uid=u216524			Anne.Mertens
	Associate professor	Ngendakumana	Philippe	The research topics covered by the Thermotechnics Unit are : 1. Combustion control by means of optical methods, flameless combustion and wood pellets 2. Alternative fuels for Internal Combustion Engines 3. Thermo-hydraulic performance of heat exchangers 4. In-Flight LOX Collection for future launch vehicles 5. New applications of the infrared thermography technique		performances de moteurs alimentés en biocarburants, combustion diluée pour accroître le rendement des chaudières,		pngendakumana
	Professor	Noels	Ludovic	The Computational and Multi-scale Mechanics of Materials is a research unit aiming at developing new multi-scale numerical methods to predict the behavior, including failure and uncertainties, of structures made of complex engineered materials.	http://www.ltas-cm3.ulg.ac.be/	Modélisation multi-échelle, Mécanique computationnelle, Endommagement, Mécanique de la Rupture, Méthodes Stochastiques multi-échelle, Matériaux polycristallins, Matériaux composites, MEMS	Multi-scale modelling, Computational Mechanics, Damage, Fracture Mechanics, Multi-Scale Stochastic Method, Polycrystalline Materials, Composite Materials, MEMS	L.Noels
	Professor	Ponthot	Jean-Philippe	LTAS-Computational Mechanics specializes in tailored software developments and numerical simulation of problems involving large deformations, complex contact interactions and multi-physics couplings. Our finite element based software METAFOR can deal with complex material behaviors including damage and fracture for both metallic and composite materials.	http://metafor.ltas.ulg.ac.be/	Grande déformations, Contact, Fatigue Crack Propagation, Blast, Impact, Maillage adaptatif, Biomécanique,projectiles non-létaux	finite element (METAFOR), meshless and particle methods, free-surface flows, CFD	J.P.Ponthot
	Associate professor	Ruffoni	Davide	The research topics at the Mechanics of Biological and Bioinspired Materials research unit are: - nanoscale mechanical characterization of biological materials by nanoindentation - design and fabrication of artificial bio-inspired composites by multimaterial 3-dimensional polymer printing	www.biomat.ulg.ac.be	Bioinspired hierarchical composite materials, cellular materials, biological interfaces, bone mineralization, bone remodeling, bone-tendon interface	3D-printing; Nanoindentation; mechanical testing; Micro-finite element model; Micro-computed tomography;	druffoni
	Professor	Terrapon	Vincent	The objective of the MTFC (Multiphysics and Turbulent Flow Computation) research group is to model and simulate numerically multiphysic flows (turbulence, fluid-structure interaction, complex rheology, heat transfer, chemical reactions) present in many applications such as viscoelastic turbulence, aeroelasticity, manufacturing processes of glass or steel, supersonic combustion...	www.mtfc.ulg.ac.be	Scramjet ; Combustion ; Supersonic ; Tabulated chemistry ; Flamelet, fluid-structure interaction, turbulent flows, external pods. Dilute Solution of Polymers, fiberglass manufacturing	aeroelasticity, ALE method, staggered coupling, mesh dynamics, hypersonics models,	Vincent.Terrapon
	Chef de travaux	Tossings	Patricia	Convergence of sets, regularization methods (proximal and Tikhonov methods), search for monotone maximal operator operators (or sums of operators), nondifferentiated convex optimization, variational inclusions: theoretical aspects and applications. Optimization of industrial processes taking into account manufacturing constraints Pedagogy applied to the training of students engineers.				Patricia.Tossings
Department ArGenCo								
	Statut	Surname	Name	Informations	Web	Key words		Mail (@uliege.be)
	Associate professor	Attia	Shady	The SBD lab research focus is computational simulation and monitoring for optimizing design and operation of high performance buildings in terms of energy use, indoor environmental quality and sustainable construction.	http://www.sbd.ulg.ac.be/	Sustainable Buildings Design, sustainable retrofit ; wood; net zero energy buildings ; buildings ; design ; decision support	Automated mathematical building performance optimisation (BPO) paired with building performance simulation (BPS)	Shady.Attia
	Chef de travaux	Brouyère	Serge	Groundwater quality and pollution: field investigations (e.g. FVPDM tracer test), groundwater and reactive transport modelling, groundwater vulnerability assessment, groundwater management in developing countries	http://www.facsu.ulg.ac.be/cms/c_681446/fr/hydrogeologie-et-geologie-de-l-environnement	interactions eau de surface - eau souterraine, contaminants en milieu souterrain hétérogène, pollution industrielle, agriculture irriguée Sénégal, Impact des ouvrages de rétention d'eau pluviale, contamination eaux souterraines / santé au Bénin,	échanges flux-solutés, tracer techniques, traçage - échantillonnage passif, statistiques multivariées	Serge.Brouyere
	Professor	Charlier	Robert	Mechanical behaviour of soils and rocks and earthstructures. Finite element numerical modelling. Thermo-hydro-mechanical coupling, partial saturation, porous media. Rupture. Geological storage of nuclear waste, geothermy, foundation of offshore windmills ...		Geomechanics applied to nuclear waste storage, Geothermy, bentonite	dypt elements finis Lagamine	Robert.Charlier

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	Professor	Collin	Frédéric	Mechanical behaviour of geomaterials; Geomechanics; Multiphysic coupling in geomaterials; Modelling of the rupture ; strain localization; non linear finite element modelling; coupled constitutive law development; Bio-Chemo-Thermo-Hydro-Mechanical applications; soil mechanics laboratory tests ; rock mechanics laboratory tests; in situ testing			elements finis carré (multi-échelle), couplage multiphysique, homogénéisation, localisation des déformations, dessiccation/séchage	F.Collin
	Associate professor	Cools	Mario	Diagnosis and analysis of transport and its externalities, i.e. (i) information collection and development of analytical frameworks for investigating transport and its externalities, (ii) Use and development of techniques for analyzing mobility patterns.		road safety, natural hazards: an analysis of flood damage, transport maritime, aide à la décision, phénomènes climatiques et océaniques, pollution marine	approche systémique, modélisation, optimisation avancée,	Mario.Cools
	Professor	Courard	Luc	The ISO 17025 accredited Building Materials Laboratory is working in the area of non-metallic building materials and is developing strategic activities in recycling materials, repair of concrete structures and use of bio-based materials.	www.argenco.ulg.ac.be	structures en béton à intérêt patrimonial, granulats recyclés pour l'amélioration des bétons préfabriqués, matériaux bio-sourcés dans la construction, Durabilité des ciments ternaires, réparation pathologie des bétons		Luc.Courard
	Professor	Dassargues	Alain	Hydrogeology, Groundwater, flow solute-heat transport modelling, tracer tests, saturated, partially saturated geological media, vulnerability, shallow geothermy, ATEs (Aquifer Thermal Energy Storage), protection zones, UPSH (Underground Pumping Storage Hydroelectricity), Groundwater - surface water interactions, land subsidence, geostatistics	http://www.facsu.ulg.ac.be/cms/c_681446/fr/hydrogeologie-et-geologie-de-l-environnement	eaux souterraines, vulnérabilité + protection des nappes aquifères		Alain.Dassargues
	Associate professor	De Ville De Goyet	Vincent			bridges, road, buldings	Non linear finite element, beams	V.deVilledGoyet
	Chef de travaux	Demonceau	Jean-François	Behaviour of steel-concrete composite structures and composite structural elements (stability, resistance, ductility...) through analytical, numerical and experimental investigations Robustness of structures: response of structures subjected to exceptional events, in particular leading to the loss of a column, including the behaviour of the structural joints	http://www.facsu.ulg.ac.be/cms/c_683979/fr/constructifs-metalliques-et-mixtes-cem	Comportement de structures de bâtiment, des assemblages sous évènement exceptionnel, robustesse, explosion		Jf.demonceau
	Professor	Denoël	Vincent	Analysis, modeling, identification and characterization of (usually dynamic, vibratory, oscillatory or impulsive, and random) actions created by natural events or caused by human activity, as well as their consequences on structures.		non gaussian analysis, wind tunnel measurements, modélisation du forage, sismique des bâtiments en maçonnerie, dynamique des grue rotative	stochasticité, dynamique, essais en soufflerie, performances acoustique et thermique, contraintes élastique, friction, contact	V.Denoel
	Professor	Dewals	Benjamin	Improving the predictive capacity of models used in fluvial hydraulics and for operating large hydraulic structures, particularly in terms of sustainable sediment management, water resources management, flood risk management and assessment of environmental impacts.	www.hece.ulg.ac.be	modèles différentes échelles spatiales du risque d'inondation, stabilité de blocs dans des rivières à forte pente, écoulement suite à des brèches dans des digues,		B.Dewals
	Professor	Duchene	Laurent	Finite element method (user and developer), Fatigue behaviour of metallic materials, Local design of Civil Engineering components, Analysis and modelling of the thermo-mechanical behaviour of metals, Micro-forming with (strain gradient) crystal plasticity models	http://www.facsu.ulg.ac.be/cms/c_683942/fr/mecanique-des-solides-et-des-materiaux-msm	Modélisation du comportement des revêtements, développement EF	Eléments finis dvp Lagamine, FEAP,	L.Duchene
	Associate professor	Elsen	Catherine	Fundamental research in design and innovation engineering. Analytical and prospective assessment of (i) design and innovative processes in architecture, building engineering and industrial design and (ii) user-centered, user-experiences and Design Thinking approaches. Applied research in creative engineering, Fab Labs and Living Labs: development of dedicated tools and methods.				Catherine.Elsen
	Chef de travaux	Epicum	Sébastien	Hydraulics of civil engineering works. Operation and design, physical models and composite experimental-numerical modelling. Dams, spillways, locks, water intakes, hydropower plants and other flow control structures.		vibrations de nappes déversantes, Modélisation hydride en écoulements aérés	étude expérimentale, modèle réduit	S.Epicum

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	Professor	Franssen	Jean-Marc	Fire safety engineering, development of temperatures in a fire compartment, behaviour of the structure in the fire situation, timber structures	http://www.facsu.ulg.ac.be/cms/c_1584029/en/safir	résistance au feu	essais au feu, devpt logiciel SAFIR, Ozone	JM.Franssen
	Professor	Gaydardzhiev	Stoyan	The Mineral Processing and Recycling unit is specialized in the area of processing primary and secondary mineral resources, as well as in recycling and valorisation of End of Life Products (shredder residues, e-wastes, photovoltaic panels, ...)	http://www.gemme.ulg.ac.be/	Traitement de minerais; Caractérisation; Separation; Recyclage de métaux et de matériaux composites; Economie circulaire	flottation, tri, separation, fragmentation, hydrometallurgie et bio-hydrometallurgie des métaux non ferreux	S.Gaydardzhiev
	Directeur de recherche FNRS	Habraken	Anne Marie	Identification, development and validation of multiscale models for the thermo-mechanical-metallurgical behavior of materials and their forming processes (incremental forming, laser cladding, continuous casting, phase transformation, welding, coating...), experimentation, finite element software developments.	http://www.facsu.ulg.ac.be/cms/c_683942/en/materials-and-solid-mechanics-msm	Comprtement des matériaux métalliques, expériences et modélisations, formage incrémental, laser cladding, coulée continue, transformation de phase, fatigue, endommagement, fracture, analyse multi-échelle	éléments finis, remaillage, dvpt logiciel Lagamine, endommagement Quasi continuum method, plasticité cristalline	Anne.Habraken
	Associate professor	Halleux	Lucien	Main activity : founder and director of G-Tec SA. The company realizes ground investigation campaigns worldwide. It employs approx. 100 people. Academic activities: visiting professor (KU Leuven) & Part time lecturer (Ulg)	www.g-tec.eu	géographie économique, évolution démographique, mobilité, habitat,aménagement du territoire		lhalleux
	Professor	Jaspart	Jean-Pierre	Behaviour of steel structures and steel structural elements (stability, resistance, ductility...) through analytical, numerical and experimental investigations Behaviour of structural joints; in particular, development of innovative joint or component solutions, characterisation of the behaviour of joints or new components	http://www.facsu.ulg.ac.be/cms/c_683979/fr/constructi- ons-metalliques-et-mixtes- cmm	analyse plastique des poutre stubulaires, connection poutre colonnes, robustesse, séisme	dvpt logiciel Coop, éléments finis	Jean-Pierre.Jaspart
	Professor	Leclercq	Pierre	LUCID - Lab for User Cognition & Innovative Design develops new methods and tools supporting design and design learning in various fields : architecture, engineering, design and other complex collaborative activities. The team is especially known for its pluridisciplinary methodologies, its original sketch based interfaces and augmented reality spaces, its 3D modeling tools and its various collaboration analysis tools and methods. Keywords Design engineering, Design processes and Collaborative Complex Activity, Design Modeling, Cognitive ergonomics, Human machine interaction.	www.lucid.ulg.ac.be	espaces collaboratifs de travail/ évaluation de performance, Méthodologie de conception architecturale multi contraintes, conception préliminaire,	dvpt logiciel LUCID, incertitude, logique floue, indétermination, conception architecturale assistée par ordinateur (CAAO)	Pierre.Leclercq
	Associate professor	Mihaylov	Boyan	Research field: design, assessment, and retrofit of concrete structures of buildings and bridges Dimensionnement, évaluation et adaptation structurale de bâtiments et ponts en béton. Topics: the resilience of concrete structures subjected to extreme loading (earthquakes, explosions) and the retrofit of existing structures with modern materials. Résilience de structures en béton soumises à des chargements extrêmes (tremblement de terre, explosion) et adaptation et renforcement de structures existantes à l'aide de matériaux modernes.		Buildings beton armé, bridge, endommageant des matériaux fragiles type béton armé	Modélisation, comportement cyclique, séisme, loi de comportement	Boyan.Mihaylov
	Professor	Nguyen	Frédéric	My research currently focuses on geophysical imaging and related inverse problems, data assimilation in flow and transport models for the sub-surface, and environmental geophysics (resources, environment and energy) ..	www.appliedgeophysicsulg.wordpress.com	intrusions d'eau salée en région côtière, sites contaminés, activité microbienne	Caractérisation et monitoring géophysique, comportement cyclique, séisme, loi de comportement polarisation induite spectrale (SIP)	F.Nguyen
	Associate professor	Paquet	Pierre	The preservation-restoration of the cultural heritage: PROTECTION (inventory, list of protection, classification, requalification); RESTORATION (maintenance, sanitary state, restoration, highlighted) of historic monuments; ARCHAEOLOGY Conventions and international charters, techniques of restoration, scientific institutions, evolution of heritage notion, the regulations in Wallonia (CWATUP)	http://dgo4.spw.wallonie.be/dgati/p/dgati/default.asp	Heritage, Patrimoine culturel immobilier, protection, restauration, centres historiques, patrimoine mondial (UNESCO)		P.Paquet
	Professor	Pirard	Eric	Evaluation of mineral deposits of both primary and secondary origin. Characterisation of granular materials and process mineralogy. Core scanning and quantitative microscopy for geomaterial modelling. Industrial vision in the mineral industry, remote sensing and geostatistics.	http://www.gemme.ulg.ac.be/	télétection PSInSAR de mouvements de sols, Géologie du risque, aptitude à la granulation des matières minérales sidérurgiques, gestion durable des ressources en minéraux industriels, ciment, chaux, talc,	optical and mechanical core scanning, quantitative mineralogy, X-ray imaging, biotagging, process control,	Eric.Pirard

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	Professor	Pirotton	Michel	Hydrology and hydrodynamics of natural or human-influenced catchments. Generation and propagation of draughts, floods and inundations. Hydraulic loads on structures. Unified, process oriented and spatially distributed approaches for modeling free surface, under pressure or mixed flows with or without discontinuities.		changements climatiques, écoulement souterrain et de surface, événements extrêmes	modèles multi-échelles, dvpt code Wolf	Michel Pirotton
	Professor	Reiter	Sigrid	Architectural and urban modeling with the goal of improving the sustainability of built environments : development, validation and application of methods and tools to model built environments at the scale of the building, the neighborhood or the territory.		surchauffe estivale en Belgique, graphique pour aide à la prise de décision dans le projet urbain	approche couplée CFD-Multizone, image architecturale	Sigrid Reiter
	Professor	Rigo	Philippe	Offshore Wind turbines : Fiability, Fatigue, Predictive Maintenance, Crashworthiness... Logistic : Simulation of offshore wind park installation. Ship collision. Structural optimisation of naval, offshore and hydraulic structures, included fabrication process.		fatigue, impact de bateaux et impact sismique/structures navales, structure off shore, éoliennes, trimaran, sollicitation exceptionnelle,	optimisation structurelle, modélisation super element, code basé sur la méthode des éléments continus,	PH Rigo
	Professor	Teller	Jacques	smart cities, urban planning, land use change, urban landscape and morphology, cultural heritage, governance, urban design & mobility	http://www.lemma.ulg.ac.be/	urbanisme, Land use change modeling in the perspective of flood risk analysis, modes d'appropriation du territoire, gestion de l'eau expansion urbaine		Jacques Teller
Department of Chemical Engineering								
	Statut	Surname	Name	Informations	Web	Key words		Mail (@uliege.be)
	Associate professor	Bozet	Jean-Luc			Roulement à bille, cryotribologie		jbozet
	Chef de travaux	Dumont	Marie Noelle	Analysis and design of industrial processes, from the chemical and energy sectors. The goal is as well to validate the data obtained from such processes that to simulate or to optimize these processes, including doing energy integration				MN.Dumont
	Chercheur qualifié FNRS	Gomme	Cédric	I am interested in physicochemical phenomena occurring inside nanoporous materials. My work comprises both modelling and experimental aspects, notably using in-situ small-angle x-ray scattering measurements.	http://www.nce.ulg.ac.be/gomme	Matériaux poreux, chimie physique, diffusion des rayons x aux petits angles		Cedric.Gomme
	Professor	Heinrichs	Benoît	Design, production and processing of nanostructured materials. Characterization of their properties. Applications for environmental (photocatalysis, functionalized coatings, microreactors and microbatteries. Shaping (coatings). Upscaling of synthesis and shaping. Kinetics of catalytic reactions.	http://www.nce.ulg.ac.be/	nanomatériaux, procédé sol-gel, coatings, catalyse, photocatalyse, microréacteurs, microbatteries		B.Heinrichs
	Professor	Job	Nathalie	Energy storage and restoration via electrochemical processes (batteries, fuel cells, capacitors); development of electrode/electrolyte assemblies from nanostructured materials; study of the performance of electrochemical systems; catalysis and electrocatalysis	http://www.nce.ulg.ac.be/njob/	nano particule, pile à combustible, batterie Li ion		Nathalie.Job
	Associate professor	Keck-Antoine	Klaus			Polymer Degradation and Stability, Plastics, Additives and Compounding, Multilayer Flexible Packaging		K.Keck

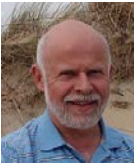
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	Maitre de recherches FNRS	Lambert	Stéphanie	Synthèse par procédé sol-gel de catalyseurs hétérogènes ; Caractérisations physico-chimiques des catalyseurs (texture, morphologie, dispersion et localisation de nanoparticules,...) ; Développement et optimisation de procédés catalytiques (hydrodécholoration, hydrogénation, oxydation de composés chlorés volatils, gazéification, dégradation des déchets en milieux gazeux, aqueux et solides, procédés utilisant des micro-organismes).		Catalyse, Gazéification, Biogaz, coatings fonctionnalisés	Sol-Gel, catalyseur métallique	Stephanie.Lambert
	Professor	Léonard	Angélique	Drying of materials: experimental (kinetics and texture follow-up by X-ray microtomography) and numerical approach Treatment of wastewater sludges, from dewatering to drying Environment assessment of processes using Life Cycle Analysis	http://www.chimapp.ulg.ac.be	Ingénierie tissulaire, Biomasse Lignicellulosique, Matériau cimentaire, impact environnement ferroviaire,	microtomographie, rayon x propriétés mécaniques, gazéification, perméabilité, filtration, séchage, floculation boue, EF	A.Leonard
	Associate professor	Léonard	Grégoire	Energy storage in liquid fuels, CO2 capture and re-use, modeling and optimization of industrial chemistry processes, economic evaluation of carbon and energy systems.		Analyse impact environnemental, émission et captation CO2		G.Leonard
	Professor	Pfennig	Andreas	Design of separation processes for the production of bio-based and conventional chemical products and for the extractive separation of urban-mining intermediates. Exergo-economic evaluation of the various process options. Special expertise on extraction, phase separation and modelling.	http://www.chimapp.ulg.ac.be/fichiers/LGC/LGC_presentation.html	Extraction de solvants, de solides, extraction réactive, distillation, rectification. Extraction in situ depuis un milieu de culture. Evaluation exergo-économique. Modélisation de procédés impliquant des phases dispersées. Analyse expérimentale basée sur la modélisation pour la mise en place optimale d'essais expérimentaux. Thermodynamique de systèmes complexes à plusieurs composés. Modélisation et essais expérimentaux touchant au transfert de masse.	solvent, reactive and solids extraction, distillation, rectification. in-situ extraction from fermentation broth. exergo-economic evaluation. drop-based process modelling. model-based experimental analysis for optimal design of experiments. multi-component thermodynamics of complex systems. mass-transfer modelling and experiments.	Andreas.Pfennig
	Associate professor	Schweitzer	Jean-Marc			génie chimique des systèmes polyphasés		Jean-Marc.Schweitzer
	Professor	Toye	Dominique	Reactor design. Experimental characterization and modelling of flow and mass transfer in stirred tank and packed bed (bio)reactors. Development of advanced experimental techniques for flow visualization. Scale-up and scale-down models.	http://www.chimapp.ulg.ac.be/fichiers/LGC/LGC_presentation.html	bio réacteur anérobie	optimisation, transformation liquide->gaz	Dominique.Toye
Department EEI								
	Statut	Surname	Name	Informations	Web	Key words		Mail (@uliege.be)
	Ingénieur en chef directeur	Beauvois	Véronique	Véronique Beauvois received the Electrical Engineering degree from the University of Liège in 1990. She is currently with the Applied and Computational Electromagnetics (ACE) Research Unit of the Electrical Engineering and Computer Science Department, University of Liège, as a Senior Lecturer. Her research mainly deals with Electromagnetic Compatibility (EMC) and Electromagnetic Fields measurements.	http://ace.montefiore.ulg.ac.be			V.Beauvois
	Professor	Boigelot	Bernard	Verification of infinite-state and real-time computer systems, symbolic methods for representing sets of values, embedded systems, adaptive robotics.		Représentation symbolique d'ensembles de vecteurs réels		Bernard.Boigelot
	Associate professor	Cornélusse	Bertrand	Control and optimization of electrical power systems: markets, distribution systems and microgrids	http://www.montefiore.ulg.ac.be/~cornelusse/	Contrôle, optimisation, réseaux électriques, marchés électriques, réseaux de distribution, micro-réseaux	Control, optimization, electrical power systems, electricity markets, distribution systems, microgrids	Bertrand.Cornelusse
	Professor	Donnet	Benoît	My research focuses on Internet measurements (algorithms for efficient measurements and interpretation of data collected), Internet modeling (reproducing in labs behavior observed through measurements), and new Internet architecture (middleboxes, LISP, SPUD, mpTCP)	http://www.montefiore.ulg.ac.be/researchunit.php?topic=show&id=6	network topology dynamic, impact of middleboxes on network development	Réseaux informatiques, Dynamique, Générateurs de topologie, Communication, Internet Measurements	Benoit.Donnet

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	Associate professor	Drion	Guillaume	I study the electrophysiological mechanisms underlying information processing in neural networks, aiming to better understand brain function and develop bio-inspired technological devices.	http://www.montefiore.ulg.ac.be/~guilddrion/			gdrion
	Professor	Embrechts	Jean-Jacques	Research activities in room acoustics: measurements (microphone arrays), modelling (sound ray tracing) and auralization. Active noise control. Music information retrieval, auralization of an electric guitar. Director of the Acoustics laboratory and the CEDIA.		Musique, guitare électrique, Reconnaissance automatique d'extraits musicaux	traitement de signal	jjembrechts
	Professor	Ernst	Damien	Prof. Damien Ernst is mainly doing research in the field of power system control or smart grids to use more trendy words. Interpreting the word "control" in the large sense, these problems encompass a multitude of issues such as market regulation, active distribution network management for integrating renewable energy, energy policy, real-time control of electrical networks or system expansion. His favorite techniques for tackling these control problems are reinforcement learning techniques which are sampling approaches for solving optimal control problems. Prof. Ernst is also working on the development of new reinforcement learning algorithms that have applications in various fields (e.g., robotics, medicine and finance).	www.damien-ernst.be	Gestion des réseaux électriques, Integration of PV pannels, Microgrids and power systems, Meta-learning for reinforcement learning, apprentissage par renforcement, jeux vidéo	intelligence artificielle, renewable energy, photovoltaic, forecasting, Smart grids	dernst
	Professor	Geurts	Pierre	The design and analysis of efficient data mining and machine learning algorithms for the exploitation of big, heterogeneous and structured data. The practical application of these methods in several domains, including computational systems biology and computer vision.	http://www.montefiore.ulg.ac.be/~geurts	Imagerie médicale., interactions génétiques chez la levure, importance de variables dérivées de forêts d'arbres aléatoires, topologically structured data, Apprentissage automatique,	Extraction de caractéristiques visuelles, collaborative filtering, calcul parallèle	p.Geurts
	Professor	Geuzaine	Christophe	Modeling, analysis, algorithm development and simulation for problems arising in various areas of engineering and science, with current applications in electromagnetism, biomedical problems and geophysics. Keywords: Applied Mathematics, Scientific Computing, Finite Elements, Mesh Generation, Gmsh, GetDP, ONELAB.		décomposition de domaine pour problèmes multi-physiques, pertes magnétiques dans les dispositifs de conversion d'énergie électromagnétique, Techniques de génération de maillages hexaédriques dominants,	FE, Solveurs électromagnétiques éléments finis massivement parallèle, problèmes de compatibilité électromagnétique de grande taille, dvpt logiciel mailleur GMSH	cgeuzaine
	Professor	Gribomont	Pascal	Application of formal logic to computer science and especially to programming and to the verification of programs.		planification trajectoire contrôle robotique		Pascal.Gribomont
	Professor	Leduc	Guy	Computer networks : Inference techniques and distributed algorithms to predict network path performance; Improvement of Network Coordinate Systems; Traffic engineering/optimization in IP and MPLS networks; Routing; New network architectures; Mobility prediction; Congestion control.	http://www.montefiore.ulg.ac.be/researchunit?op=show&id=6	réseaux informatiques, traffic engineering, Internet Coordinate Systems, formal languages; Protocoles	techniques d'apprentissage	Guy.Leduc
	Associate professor	Louppe	Gilles	Research at the intersection of deep learning, artificial intelligence and physical sciences. Applications and ongoing collaborations with physicists (CERN) and astronomers (STAR Institute, ULiège).	https://glouppe.github.io/		artificial intelligence, deep learning, machine learning, applications to physical sciences	g.louppe
	Professor	Louveaux	Quentin	Study of the geometry and of algorithmic techniques for discrete optimization problems. All applications of mathematical continuous and discrete optimization in engineering problems like for example smart grids, machine learning or water resource management.		Interger programming, management, flexibility in industry	Optimisation, cutting plane geometry, lattice theory, Primal-Dual methods	Q.Louveaux
	Professor	Mathy	Laurent			video streaming, midlebox, fast userspace networking	real time optimization	Laurent.Mathy

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	Professor	Redouté	Jean-Michel	Miniaturized and low-power sensor interfaces, robust mixed-signal integrated circuit (IC) design with a high immunity to electromagnetic interference, biomedical (integrated and non-integrated) circuit design, electromagnetic compatibility (EMC) and integrated imagers.	http://www.microsys.uliege.be/	Mixed-signal IC design, electronics circuits for biomedical applications, electromagnetic compatibility (EMC), sensor interfaces, integrated imagers, SPADs.		Jean-Michel.Redoute
	Associate professor	Sacré	Pierre	My research aims at solving problems at the interface of neural systems and artificial devices. It combines nonlinear dynamical systems and data science to connect observed neural activities and behaviors to their unobserved underlying mechanisms.	http://www.montefiore.ulg.ac.be/~sacre/	neuroengineering; control engineering; dynamical systems; statistical methods; neurodynamics	neuro-ingénierie ; ingénierie en contrôle ; systèmes dynamiques ; méthodes statistiques ; neuro-dynamique	P.Sacre
	Associate professor	Rousseaux	Patricia	My research is in the field of electric power system engineering : security analysis and control, real-time monitoring including state estimation techniques for both transmission and distribution systems, dynamics modeling and time-domain numerical simulation methods.		Power systems engineering, state estimation, dynamics, simulation and control		P.Rousseaux
	Professor	Sepulchre	Rodolphe			neural information processing, Neuro-imaging, large scale optimization algorithms, control applications	Brain imaging Manifold optimization Traitement statistique factorization dynamical modeling	R.Sepulchre
	Directeur de recherche FNRS	Van cutsem	Thierry	Research area : dynamics, stability, control and simulation of large electric energy systems. More specific topics : - voltage stability - detection and control of emergency conditions - wide-area monitoring, state estimation using synchrophasor measurements - control of dispersed generation units in distribution networks - control of combined AC and multi-terminal HVDC networks - numerical techniques for dynamic simulation of large-scale or hybrid models.		Electric power system renewable, energy supergrid, high voltage direct current, contrôle des réseau de distribution, robustesse réseau distribution,	domain-decomposition and parallel processing methods, real-time control of distributed network, disturbance detection	T.VanCutsem
	Professor	Van Droogenbroeck	Marc	Voir lien	http://scholar.google.com/citations?user=IQm8IjgAAAAJ	Détection de mouvement, interprétation scènes vidéo,	Sélection d'attributs, Combinaison d'attributs,	M.VanDroogenbroeck
	Professor	Van Steen	Kristel			Génome humain, epidemiological data, cancer de la vessie, molecular reclassification of cancer patients,	génétique statistique, algorithmes de détection d'interaction inter et intra omics,	Kristel.VanSteen
	Professor	Vanderbemden	Philippe	Design and development of high-sensitivity electrical measurement systems for characterizing the electrical, thermal, and magnetic properties of various materials used in electrical engineering (superconductors, electroceramics, magnetic materials, dielectrics, insulating materials...)		blindage magnétique, écrans magnétiques passif supraconducteur, structure ferromagnétique,		Philippe.Vanderbemden
	Professor	Vanderheyden	Benoît	I am interested in the electrical and magnetic properties of materials used in electronics (superconductors, semiconductors). My activities are focused on modelling these properties in order to better interpret characterization experiments and/or in the context of a specific application in electronics or in electrical engineering.		propriété magnétique, supraconducteur	voltage probe design, light absorption, magnet	B.Vanderheyden
	Professor	Wehenkel	Louis	Joint exploitation of first principles from physics and experimental datasets to build models of complex uncertain systems and optimize their behavior. Development of machine learning and optimization algorithms and their application to large scale electric power and energy systems, systems biology, and computer vision.		Apprentissage inductif et automatique, computational systems biology, electric power transmission	optimisation, arbre aléatoire, analyse d'images	L.Wehenkel

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	Professor	Wolper	Pierre	Algorithmic methods based on the use of finite automata viewed as a data structure. Beyond their use as a model of computation, finite automata and their variants (automata on trees, on infinite words, ...) are used as a powerful tool to develop algorithms in a variety of areas such as software verification, logic, or the representation and algorithmic manipulation of infinite sets of numbers.		Software reliability		Pierre.Wolper
ARD - FSA								
	Conservateur	Anceau	Annick	Editor of Geologica Belgica. History of cartography, especially geological mapping. Information search through a cartographic interface.	http://popups.ulg.ac.be/1374-8505/index.php?lang=en			A.Anceau
Personnes promotrices de thèse dans nos collèges mais hors FSA								
	Maitre de recherches FNRS	Philips	Jean-Christophe	Biomedical engineering; neuroimaging data processing: functional and structural magnetic resonance imaging (MRI), positron emission tomography (PET), electroencephalography (EEG); brain structural and functional organization in healthy (sleep, genetic, memory and learning) and pathological (Parkinson and Alzheimer disease) subjects; image registration and segmentation; uni- and multi-variate statistics		Génie biomédical, apprentissage, Sommeil, animal imaging, biologie systémique,	Brain activity detection, Monte Carlo Simu, Tomography, Système stochastique	C.Phillips
		Desaive	Thomas			Génie biomédical, modélisation et contrôle des systèmes physiologiques (cardiovasculaire, respiratoire et métabolique), hémodynamique expérimentale, expérimentation animale	Control theory, nonlinear dynamics, signal processing, nonlinear ODE	tdesaive