UNIVERSIDAD/CENTRO DE INVESTIGACIÓN/I	TEMA	INVESTIGADOR RESPONSABLE	OBSERVACIONES
MIT	quantum nanoelectronics, graphene	Pablo Jarillo	
MIT	Image Processing ML, computer vision, human perception	Antonio Torralba	
MIT	Complex aerospace systems design and optimization, resources optimization in satellite systems, optimization algorithms (with, maybe, application of AI)	Ed Crawley	abierto a diferentes tipos de perfiles: comunicaciones, programación, aero, etc.
MIT	AI (some experience with Tensorflow and/or Pytorch) and/or photonics	Marin Soljacic	estancias de 10 meses (agosto.20 - mayo.21) o 9 meses (febrero.21 -octubre.21), funding: 6 meses CFIS + meses extra host
MIT (Electrical&Computer Science Dept.)	Computer Architecture, Computer Systems, Parallelism, Memory Hierarchy	Daniel Sanchez	Tutor local UPC: Antonio González.
MIT	Machine Learning, Deep Learning, AI for Science, Meta-Learning, Program Synthesis	Ferran Alet	preferiblemente 9 meses, funding: tasas, https://alet-etal.com/
MIT	applied mathematics, control theory, mathematical modeling, numerical simulation, machine learning, data analytics	Richard D. Braatz	
MIT	algebraic statistics, machine learning, computational biology	Caroline Uhler	tutora local UPC: Marta Casanellas
Princeton	integrated circuits for emerging application with energy constraints (biomedical, remote sensing, processing nodes, computing)	Naveen Verma	
UC San Diego	mathematical control theory (robotics, network science, distributed optimization, multi-agent coordination)	Jorge Cortés	
UC San Diego	network control systems, multi-agent, geometry, optimization, applications to robotics, power and traffic networks	Sonia Martínez	preferiblemente Q1, preferiblemente mates y/o informática (pero no es una restricción)
UC Irvine	electrospray propulsion, electrospraying of nano- and micro-particles, electrospinning, electrostatic focusing of nanodroplet beams, molecular dynamics of nanodroplet impact	Manuel Gamero	
Harvard	Soft materials	David A. Weitz	
Harvard	brain computing, brain science	Donhee Ham	
Harvard (School of Engin.&Applied Scien.)	Hardware/Software system design for machine learning; HW/SW system design for robotics and autonomous vehicles; Domain-specific system-on-chip design methodologies (e.g. modeling, simulation, design, programming)	David Brooks and Vijay Janapa Reddi	Tutor local UPC: Antonio González.
Utah	wearable bio-sensing, cancer screening, electrical diagnostics and ultrasound imaging	Benjamín Sánchez	
U.C. Berkeley	Brain-like computer processors	Jan Rabaey	
Cornell	detection/characterization of extrasolar planets (control; computer vision ML, optical alignment, astronomical image processing; scheduling for autonomous space observatories & ground-based surveys; statistical analysis of astronomical surveys)	Dmitry Savransky	
Texas Austin	Astrophysics/Gravity and Computational Physics, numerical relativity	Deirdre M. Shoemaker & Pablo Laguna	
Texas A&M	Complex aeroespace systems design with ML, global optimization	Daniel Selva	
Texas A&M	Bioastronautics (experimental and computational approaches to study artificial gravity combined with exercise as a future countermeasure for human deconditioning in space)	Ana Díaz-Artiles	
NYU	Machine learning, inverse problems, signal processing, data-driven medicine	Carlos Fernández-Granda	
Columbia University	quantum optics, atomic physics, open quantum systems, quantum information, condensed matter physics	Ana Asenjo Garcia	theoretical oriented, https://anaasenjogarcia.com/
Columbia University	atomic physics, laser cooling and trapping, ultracold atoms and molecules, quantum simulation of many-body quantum phenomena, physics of quantum materials, scanning tunneling microscopy, electron transport in nanoscale devices, physics of quantum materials, nano-optical spectroscopy and imaging, optical control of quantum phenomena in complex materials	Sebastian Will, Abbhay Pasupathy, Dmitri Basov	experimental oriented, https://www.will-lab.com/, https://physics.columbia.edu/content/abhay-narayan-pasupathy, https://infrared.cni.columbia.edu/
Columbia University	computer vision, robotics, intelligent systems that learn from interaction, autonomous acquisition of perception and manipulation skills to execute complex tasks, 3D perception for robot manipulation, learning complex manipulation from human demonstration	Shuran Song	preferiblemente 9 meses, https://www.cs.columbia.edu/~shurans/
Northeastern University	Signal Processing underwater communications	M. Stojanovic	
Northeastern University	Biomedical image/video processing	D. Brooks	
Northeastern University	Graphen THz wireless networks and Neural Optogenetic, Terahertz Communications, Wireless nano-bio-communication networks, Internet of Nano-Things	J.M. Jornet	
Northeastern University (Dept. Electrical & c	Statistical signal processing; Machine learning; Bayesian inference; Neural network training; Model mismatch; Estimation bounds; applications to GNSS and positioniong	Pau Closas	
Mississippi State University	wireless communications, software radio, digital signal processing, UAS (UAV, drones), testbed, 5G, wireless security, AI for wireless networks	Vuk Marojevic	posibilidad de funding adicional por confirmar cuando llegue la fecha de estancia, posibilidad de continuar con MsC o PhD
UMASS (Massachussets, no en Boston)	Electromagnetism, photonics, radar	S. Frasier	
Georgia Tech	AI computer architectures	T. Krishna	
Georgia Tech-Physics Department	Quantum gases, Bose-Einstein condensation, single molecule biophysics	Chandra Raman	por confirmar
Georgia Tech-College of computing	robotics and computer vision	Frank Dellaert	se requiere algún conocimiento previo o experiencia en robótica
Georgia Tech-School Electr.&Comp.Eng.	Computer Architecture, Memory Systems, Hardware Security, Quantum Computing	Moinuddin K. Qureshi	Tutor local UPC: Antonio González.
New Jersey Institute of Technology	Mathematical and computational neuroscience ("metakeyword"), Brain rhythms and oscillations: biophysics and dynamical mechanisms, Information processing in neuronal networks, Model/automatic parameter estimation from experimental data. (Más informaciόm disponible bajo petición enviando un email a cfis.sotsdireccio.mobilitat@upc.edu)	Horacio G. Rotstein	Tutor local UPC: Toni Guillamon. departament de biologia (https://biology.njit.edu/) i institut de neurociència (https://ibnr.njit.edu/). Disponible preferiblemente en Q1.
U. Illinois Urbana-Champaign	Wireless network-on-chip for massive core computer chip architecture	J. Torrellas	
U. Illinois Urbana-Champaign	robotics, motion and task planning, multi-agent systems, mobile manipulation, parallel algorithms, computational biology, computational geometry	Nancy Amato	Tutora local UPC: Carme Torras.
University of Michigan	robotics and AI, manipulation, Robotic learning for manipulation, State-estimation and perception, Planning and controls for robotic manipulation, Perception and learning for robotic tool-use, Primitive action (pushing, pulling, grasping) learning, Adversarial Manipulation Games	Nima Fazeli	preferiblemente 9 meses
U. Southern California	Image Processing	Antonio Ortega	
California State University	calcium cycling, multi-scale modeling, cardiac arrhythmia	Yohannes Shiferaw	Tutor local UPC: Blas Echebarría.
Los Alamos National Laboratory	Metasurfaces for arbitrary control of Electromagnetic THz waves, Electromagnetic metamaterial, nanophotonics	Hou-Tong Chen	
NASA-Goddard Space Flight Center	Astrophysics, Spectrometry, interferometry	Iban Ibañez Domenech	
NASA-Goddard Space Flight Center	heliophysics, space weather, plasma physics, data analysis, machine learning, computer science	Teresa Nieves-Chinchilla	preferiblemente, 1 estudiante por cuatrimestre con perfil científico
NASA JPL (Jet Propulsion Laboratory)	communications systems, telecom	Kar-Ming Cheung Y Marc Sanchez Net	
Netflix (Los Gatos, California)	ver descripción en presentación de movilidad	Joel Sole y Anne Aaron	contrato remunerado con la empresa durante el internship
IQC (Univ. of Waterloo)	Quantum Information and Quantum field theory, General Relativity	Eduardo Martín-Martínez	
IQC (Univ. of Waterloo)	matter wave optics, interferometry, neutron interferometry, new physics (search for dark energy), quantum information science, condensed matter physics and quantum phases in materials, structured light and matter wave	Dmitry Pushin	
U. Toronto (Medical Biophysics-CS)	"Pharmacogenomics" (https://www.pmgenomics.ca/bhklab/research) and "Medical image and Deep Learning"	Benjamin Haibe-Kains	
U. Toronto (Comp. Science)	artificial intelligence, applications to robotics	Sheila McIlraith	por confirmar, se requiere un nivel académico alto
U. Delft	Robotics and Intelligent Transportation, methods for navigation, motion planning, learning and control of autonomous mobile robots, with a special emphasis on multi-robot systems, on-demand transportation and robots that interact with other robots and humans in dynamic and uncertain environments. Applications include self-driving cars, mobile manipulators, drones, last-mile logistics and ride-sharing	Autonomous Multi-Robots Laboratory (Javier Alonso-Mora): https://www.autonomousrobots.nl/	posibilidad de acoger a varios estudiantes en el grupo de investigación
Leiden Institute of Physics (Leiden University)	Shallow-depth quantum computing, Bell correlations in many-body systems, Quantum machine learning and tensor networks, Quantum self-testing and other Device-Independent Quantum Information Processing protocols, Bound entanglement in the symmetric states, Characterization of entanglement witnesses	Jordi Tura Brugués	
Apple UK	grupo de natural language processing (speech signal processing, machine learning and artificial intelligence, dialogue systems, etc.). Ver explicación en presentación de movilidad	investigador(es) del grupo	por confirmar, remuneración por confirmar, puede que sea posible un proceso de selección especifico (ver presentación)
CSEM-Biomedical Signal Processing Lab	wearables, biomedical, privacy, security, homomorphic encryption, trusted execution environments, cloud computing (documento de descripción disponible: enviar email a cfis.sotsdireccio.mobilitat@upc.edu)	Ricard Delgado Gonzalo	un estudiante por cuatrimestre, remunerado
EPFL	algebraic topology, neuroscience, homotopy theory	Kathryn Hess	tutora local UPC: Marta Casanellas
Max-Planck-Institut (Göttingen)	Arrhythmia control (low-energy defibrillation VF/AF), Arrhythmia imaging (multi-modal optical mapping, electro-mechanic imaging), Data analysis, parameter estimation, model validation, machine learning, Cardiac optogenetics	Stefan Luther	Tutor local UPC: Blas Echebarría. Stefan Luther es el coordinador del grupo, el director del TFG se asignará una vez escogido el tema
Max-Planck-Institut (Leipzig)	Deep Learning, Algebraic Statistics, see other research interests in https://personal-homepages.mis.mpg.de/montufar/	Guido Montúfar	tutora local UPC: Marta Casanellas
University of Groningen	Control systems, Multi-agent systems, Distributed algorithms, Networked cyber-physical systems, Game theory, Optimization under uncertainty	Ashish Cherukuri	por confirmar
HKUST (Hong Kong University of Science and	financial engineering, optimization, data analytics, big data, ML	Daniel Perez Palomar	posibilidad de funding adicional por confirmar, preferiblemente Q1, posibilidad de acoger a 2 estudiantes
HKUST (Hong Kong University of Science and	Bioinformatics, biomedical signal processing, medical image analysis, computational proteomics, radiogenomics	Weichuan Yu	posibilidad de funding adicional por confirmar, los 2 cuatrimestres, pero preferiblemente Q1
HKUST (Hong Kong University of Science and	brain machine interfaces, neural engineering, adaptive signal processing, and machine learning	Yiwen Wang	posibilidad de funding adicional por confirmar
HKUST (Hong Kong University of Science and	spintronic quantum materials	Qiming Shao	por confirmar
HKUST (Hong Kong University of Science and	Aerial robotics, Control and robotic systems, Unmanned Aerial Vehicles, Estimation and Control for Aerial Robots, Sensor Fusion, Autonomous Navigation, Computer Vision	Shaojie Shen	por confirmar
HKUST (Hong Kong University of Science and	computer graphics, computer vision, machine learning, optimization	Qifeng Chen	por confirmar
The University of Sydney	physics, nanotechnology, complex systems, neural networks, neurotechnology, bio-electronics	Zdenka Kuncic	