

ERC Starting Grants 2021

List of Principal Investigators selected for funding from the reserve list

Only for Principal Investigators whose Host Institutions are established in Switzerland:

Following the termination of the exploratory talks, Switzerland is considered a non-associated third country. As a result, Host Institutions established in Switzerland are not eligible for funding. Exceptionally for this call, since it was already closed before the termination of the negotiations, the proposals submitted with Swiss Host Institutions and which have been selected for funding may remain eligible provided that their Host Institution is replaced with a legal entity established in an eligible country.

Only for Principal Investigators whose Host Institutions are established in a candidate associated country:

As described in Annex 3 of the ERC Work Programme 2021, successful applicants established in a country in the process of associating to Horizon Europe will not be treated as established in an associated country if the association agreement does not apply by the time of the signature of the grant agreement.

Last name	First name	Host Institution Local name	Host Institution Name	Host country	Acronym	Title	Panel
MIKULA	Hannes	Technische Universität Wien	Vienna university of Technology	AT	bioTARGET	Bioorthogonal Cascade-Targeting: Directing Drugs into Cells with Molecular Precision	PE5
RINGBAUER	Martin	Universität Innsbruck	University of Innsbruck	AT	QUDITS	Quantum Information Processing in High-Dimensional Ion Trap Systems	PE2
SCHEURER	Mathias	Universität Innsbruck	University of Innsbruck	AT	SuperCorr	Understanding, Engineering, and Probing Correlated Many-Body Physics in Superlattices of Graphene and Beyond	PE3
CALDERS	Kim	Universiteit Gent	Ghent University	BE	SPACETWIN	Digital twins for understanding forest disturbances and recovery from space	PE10
DEVRIESE	Dominique	Katholieke Universiteit Leuven	University of Leuven	BE	UniversalContract s	Formalizing, Verifying and Applying ISA Security Guarantees as Universal Contracts	PE6
MASSONNET	Francois	Université catholique de Louvain	Catholic University of Louvain	BE	ArcticWATCH	Early warning of future rapid Arctic sea ice loss	PE10
MERTENS	Thomas	Universiteit Gent	Ghent University	BE	BHHQG	Black Hole Horizons in Quantum Gravity	PE2
BERROCAL	José Augusto	Université de Fribourg - Universität Freiburg	University of Fribourg	CH	ReHuse	Reversible Heterolytic Mechanophores for Dynamic Bulk Materials	PE5
BERSINI	Simone	Università della Svizzera italiana	University of Lugano	CH	I'M AGEING	Integrated Microphysiological-omic approach to identify blood proteins reverting vascular AGEING	PE8
CAO	Hao	Eidgenössische Technische Hochschule Zürich	Swiss Federal Institute of Technology Zurich (ETH Zurich)	CH	SETTLE	Stable stratification: the key piece of the puzzle for understanding giant planets	PE9
RAZAVI	Kaveh	Eidgenössische Technische Hochschule Zürich	Swiss Federal Institute of Technology Zurich (ETH Zurich)	CH	PROMISE	Proactive Microarchitectural Security	PE6

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SAFFIRIO	Chiara	Universität Basel	University of Basel	CH	AEQUA	Advances in effective evolution equations for classical and quantum systems	PE1
SCARLINO	Pasquale	Ecole Polytechnique Fédérale de Lausanne	Swiss Federal Institute of Technology Lausanne (EPFL)	CH	Strong-H-cQED	Hybrid Circuit Quantum Electrodynamics in the Strong and Ultra-Strong Coupling Regime	PE3
KOZAK	Martin	Univerzita Karlova V Praze	Charles University of Prague	CZ	eWaveShaper	Spatio-temporal shaping of electron wavepackets for time-domain electron holography	PE3
VERHAGEN	Tim	Univerzita Karlova V Praze	Charles University of Prague	CZ	2D-sandwich	2D sandwiches, artificial layered building blocks for multifunctional materials	PE11
BARTLEY	Tim	Universität Paderborn	University of Paderborn	DE	QuESADILLA	Quantum Engineering of Superconducting Array Detectors In Low-Light Applications	PE2
BASTOS	Ana	Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V.	Max Planck Society	DE	ForExD	Forest vulnerability to compound extremes and disturbances in a changing climate	PE10
BOEHMER	Anna	Ruhr-Universität Bochum	Ruhr University Bochum	DE	Distort-to-Grasp	Distorting unconventional superconductivity - A grasp of electronic phases with multiple broken symmetries	PE3
BRESSER	Dominic	Karlsruher Institut für Technologie	Karlsruhe Institute of Technology	DE	RACER	Highly Redox-active Atomic Centers in Electrode Materials for Rechargeable Batteries	PE8
BUNESCU	Ala	Rheinische Friedrich-Wilhelms-Universität Bonn	University of Bonn	DE	MLCat	Multifunctional Ligands for Enhanced Catalysis	PE5
DAVI	Lucas	Universität Duisburg-Essen	University of Duisburg-Essen	DE	CONSEC	Secure Execution of Smart Contracts	PE6
GATTI	Teresa	Justus-Liebig-Universität Gießen	Justus Liebig University Giessen	DE	JANUS BI	All-liquid phase JANUS Bidimensional materials for functional nano-architectures and assemblies	PE11

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HAEHL	Felix	Ludwig-Maximilians- Universität München	University of Munich (LMU)	DE	HoloQuant	Chaos and coarse-graining in holography: towards a new paradigm for quantum gravity	PE2
HAUMANN	Alexander	Technische Universität München	Technical University of Munich	DE	VERTEXSO	VERTical EXchange in the Southern Ocean	PE10
JAROCHOWSKA	Emilia	Friedrich-Alexander- Universität Erlangen-Nürnberg	University of Erlangen- Nuremberg	DE	MindTheGap	Quantifying the completeness of the stratigraphic record and its role in reconstructing the tempo and mode of evolution	PE10
LEAL-TAIXE	Laura	Technische Universität München	Technical University of Munich	DE	DynAI	Omni-Supervised Learning for Dynamic Scene Understanding	PE6
LEIS	Viktor	Friedrich-Alexander- Universität Erlangen-Nürnberg	University of Erlangen- Nuremberg	DE	CODAC	Commoditizing Data Analytics in the Cloud	PE6
MUMA	Michael	Technische Universität Darmstadt	Technical University of Darmstadt	DE	ScReeningData	Scalable Learning for Reproducibility in High- Dimensional Biomedical Signal Processing: A Robust Data Science Framework	PE7
OBERDIECK	Georg	Rheinische Friedrich-Wilhelms- Universität Bonn	University of Bonn	DE	K3Mod	Correspondences in enumerative geometry: Hilbert schemes, K3 surfaces and modular forms	PE1
PELTOLA	Eveliina	Rheinische Friedrich-Wilhelms- Universität Bonn	University of Bonn	DE	ISCoURaGe	Interplay of structures in conformal and universal random geometry	PE1
PIRRO	Philipp	Technische Universität Kaiserslautern	Technical University Kaiserslautern	DE	CoSpiN	Coherent Spintronic Networks for Neuromorphic Computing	PE3
POMPLUN	Sebastian	Ludwig-Maximilians- Universität München	University of Munich (LMU)	DE	SynTra	Controlling Gene Expression with Synthetic Cell-Penetrating Transcription Factors	PE5

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POONOOSAMY	Jenna	Forschungszentrum Jülich GmbH	Jülich Research Centre	DE	Genies	Gas-water-mineral interfaces in confined spaces: unravelling and upscaling coupled hydro- geochemical processes	PE10
POSSKE	Thore	Universität Hamburg	University of Hamburg	DE	QUANTWIST	Enhanced quantum resilience through twists	PE3
QIU	Tian	Universität Stuttgart	University of Stuttgart	DE	VIBEBOT	Vibrational Micro-robots in Viscoelastic Biological Tissues	PE8
RAVAT	Prince	Julius-Maximilians Universität Würzburg	Julius-Maximilians University of Würzburg	DE	HELMIDE	[n]Helicene Diimides: A Twist in Diimide Chemistry	PE5
SCHMITT	Julian	Rheinische Friedrich-Wilhelms- Universität Bonn	University of Bonn	DE	TOPOGRAND	Non-Hermitian Topological Physics in Grand Canonical Photon Lattices	PE2
SULC	Petr	Rheinische Friedrich-Wilhelms- Universität Bonn	University of Bonn	DE	PRONANO	Programmable Nanomatter	PE3
LARAIA	Luca	Danmarks Tekniske Universitet	Technical University of Denmark	DK	ChemBioChol	Chemical biology of intracellular cholesterol transport	PE5
SAMSING	Johan	Københavns Universitet	University of Copenhagen	DK	BlackHoleMergs	Dynamical Formation of Black Hole Mergers	PE9
ABADAL	Sergi	Universitat Politecnica de Catalunya	Polytechnic University of Catalonia	ES	WINC	Wireless Networks within Next- Generation Computing Systems	PE7
ARINO ESTRADA	Gerard	Instituto de Física de Altas Energías	IFAE	ES	CHLOE-PET	CHerenkov Light mOduLE for time- of-flight Positron Emission Tomography	PE7
AUSIN	Blanca	Universidad de Salamanca	University of Salamanca	ES	PASSAGE	Provenance And tranSport PathwayS of mArine proxy-bearinG particlEs	PE10
BARJA MARTINEZ	Sara	Universidad Del País Vasco Ehu Upv	University of the Basque Country	ES	COSAS	Controlling Oxygen Selectivity at the Atomic Scale	PE4

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CARIDAD HERNÁNDEZ	José Manuel	Universidad de Salamanca	University of Salamanca	ES	CHIROTRONICS	Controlling chirality in atomically thin quantum electronic materials	PE7
JUEZ	Carmelo	Agencia Estatal Consejo Superior de Investigaciones Científicas	Spanish National Research Council (CSIC)	ES	SEDAHEAD	Dynamic river catchments in a Global Change context: assessing the present, preparing for the future	PE8
MOMPEAN	Miguel	Agencia Estatal Consejo Superior de Investigaciones Científicas	Spanish National Research Council (CSIC)	ES	BiFOLDOME	BiFoldome: Homo- and Hetero- typic Interactions in Assembled Foldomes	PE4
AVICE	Guillaume	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	ATTRACTE	Atmospheric tracing of Earth's evolution	PE10
CUELLO	Nicolas	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	Stellar-MADE	Exploring the impact of Stellar Multiplicity on planet formation Across Disc Evolution	PE9
DELLINGER	Mathieu	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	LAKE-SWITCH	Using lake sediments to reconstruct soil weathering trajectories over the Holocene	PE10
ELIAS MIRO	Joan	United Nations Educational, Scientific and Cultural Organization - UNESCO	UNESCO	FR	X-HEP	Exotic High Energy Phenomenology	PE2
HEYMAN	Joris	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	CHORUS	How does Chaos drive Transport Dynamics in Porous Media ?	PE8
HORBEZ	Camille	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	Artin-Out-ME-OA	Artin groups, mapping class groups and Out(Fn): from geometry to operator algebras via measure equivalence	PE1

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MELATI	Daniele	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	BEAMS	Multilayer photonic integration platform for free space optics	PE7
PERRIN	Leo	Institut National de Recherche en Informatique et en Automatique	National Institute for Research in Computer Science and Automatic Control (INRIA)	FR	ReSCALE	Reinventing Symmetric Cryptography for Arithmetization over Large fiElds	PE6
TILLOY	Antoine	Association pour la Recherche et le Developpement des Methodes et Processus Industriels - Armines	Research Association for development and methods in Industrial Processes	FR	QFT.zip	Compressing many-body quantum states in continuous space-time with tensor networks	PE2
VACHER	Morgane	Centre National de la Recherche Scientifique (CNRS)	National Center for Scientific Research (CNRS)	FR	ATTOP	ATTOfsecond Photochemistry: controlling chemical reactions with electrons	PE4
DANIELY	Amit	The Hebrew University of Jerusalem	The Hebrew University of Jerusalem	IL	Understanding DL	Understanding Deep Learning	PE6
GOYKHMANN	Ilya	Technion - Israel Institute of Technology	Technion - Israel Institute of Technology	IL	Multi GRAPH	Investigation of Disruptive 2D/Silicon Technology for Hybrid Multispectral Photodetection	PE7
GRAVE	Daniel	Ben-Gurion University of the Negev	Ben-Gurion University of the Negev	IL	DREAM	Design Rules for Efficient Photogeneration in Metal Oxides	PE11
KALCHEIM	Yoav	Technion - Israel Institute of Technology	Technion - Israel Institute of Technology	IL	MottSwitch	Highly Energy-Efficient Resistive Switching in Defect- and Strain-Engineered Mott Insulators for Neuromorphic Computing Applications	PE11
ROSENBLUM	Serge	Weizmann Institute of Science	Weizmann Institute of Science	IL	Q-CIRC	Superconducting qubits with 1 second coherence time using rotation codes	PE3

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SOUDRY	Daniel	Technion - Israel Institute of Technology	Technion - Israel Institute of Technology	IL	A-B-C-Deep	Algorithmic Bias Control in Deep learning	PE6
WEINSTEIN	Omri	The Hebrew University of Jerusalem	The Hebrew University of Jerusalem	IL	CODY	The Complexity of Dynamic Problems	PE6
ALBERTI	Giovanni S.	Università degli Studi di Genova	University of Genoa	IT	SAMPDE	Sample complexity for inverse problems in PDE	PE1
BARANOV	Dmitry	Fondazione Istituto Italiano di Tecnologia	Italian Institute of Technology	IT	PROMETHEUS	Engineering of Superfluorescent Nanocrystal Solids	PE11
GOBBO	Pierangelo	Università degli Studi di Padova	University of Padua	IT	PROTOMAT	Integrating non-living and living matter via protocellular materials (PCMs) design and synthetic construction	PE5
LUCANTONIO	Alessandro	Scuola Superiore Sant'Anna	Sant'Anna School of Advanced Studies	IT	ALPS	AI-based Learning for Physical Simulation	PE8
RONCA	Enrico	Consiglio Nazionale delle Ricerche	Italian National Research council	IT	QED-Spin	Controlling spin properties of molecules with quantum fields: ab- initio methodologies for spin polaritons	PE4
VIOLA	Francesco	Gran Sasso Science Institute	Gran Sasso Science Institute	IT	CARDIOTRIALS	Using CARDIac simulations to run in-silico clinical TRIALS	PE8
AKYILDIZ	Ali	Erasmus Universitair Medisch Centrum Rotterdam	Erasmus Medical Center Rotterdam	NL	MicroMechAthero	Identifying Atherosclerotic Plaques at Risk: A Microstructure-based Biomechanistic Approach	PE8
ALONSO- MORA	Javier	Technische Universiteit Delft	Delft University of Technology	NL	INTERACT	Intuitive interaction for robots among humans	PE7
KOTTAPALLI	Ajay Giri Prakash	Rijksuniversiteit Groningen	University of Groningen	NL	SEALSENSE	Investigation of biological seal whiskers to create artificial whisker sensors for underwater robots	PE7
STEINLECHNER	Jessica	Universiteit Maastricht	Maastricht University	NL	MIRRORS	Revolutionizing Mirror Technology to Discover the Dark Universe	PE9
WALTER	Michael	Universiteit van Amsterdam	University of Amsterdam	NL	SYMOPTIC	Symmetry and Optimization at the Frontiers of Computation	PE6

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GARBACZ	Piotr	Uniwersytet Warszawski	University of Warsaw	PL	NMER	Chirality-sensitive Nuclear Magnetoelectric Resonance	PE4
LOFF	Bruno	Universidade Do Porto	University of Porto	PT	HOFGA	The Hardness of Finding Good Algorithms	PE6
RIBEIRO	Ana	Universidade Do Porto	University of Porto	PT	ERA-ARE	A new ERA for Environmental Risk Assessment: Chirality as a tool towards environmentally safe pharmaceuticals	PE4
GASPARINETTI	Simone	Chalmers tekniska högskola	Chalmers University of Technology	SE	ESQuAT	Experimental Search for Quantum Advantages in Thermodynamics	PE2
LANEKOFF	Ingela	Uppsala Universitet	Uppsala University	SE	X CELL	Revealing cellular behavior with single-cell multi-omics	PE4
ATALAY	Ozgur	İstanbul Teknik Üniversitesi	Istanbul Technical University	TR	TEXWEAROTS	Textile-Based Wearable Soft Robotics with Integrated Sensing, Actuating and Self Powering Properties	PE8
BUKUSOGLU	Emre	Orta Dogu Teknik Universitesi	MIDDLE EAST TECHNICAL UNIVERSITY	TR	LCFlow	Liquid Crystals in Flow: A New Era in Sensing and Diagnostics	PE8
ARMSTRONG	David	University of Warwick	University of Warwick	UK	INNATE	Investigating the nature and origins of exoplanets in the Neptunian desert	PE9
COTI ZELATI	Michele	Imperial College of Science, Technology and Medicine	Imperial College of Science, Technology and Medicine	UK	STABLE-CHAOS	Stable structures and chaotic dynamics in fluid flows	PE1
FAWZI	Hamza	University of Cambridge	University of Cambridge	UK	GRASP	Conic relaxations: scalable and accurate global optimization beyond polynomials	PE6
HANDLEY	Will	University of Cambridge	University of Cambridge	UK	COSMOTENSION	Resolving cosmological tensions with diverse data, novel theories and Bayesian machine learning	PE9
HARVEY	David	Durham University	Durham University	UK	DARKSKIES	Measuring the self-interaction cross-section of dark matter with all-sky surveys	PE9
HORN	Susanne	Coventry University	Coventry University	UK	MAGNADO	The Magnetohydrodynamics of Liquid Metal Tornadoes	PE3

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MEHDI	B. Layla	University of Liverpool	University of Liverpool	UK	MOSTEM	Multi-Modal Operando (S)TEM: Smart Design and Rapid Testing of Nanobatteries	PE4
YANG	Qian	University of Manchester	University of Manchester	UK	Wonder Sieve	Smart van der Waals Sieves	PE4