

(more information by clicking on the PhD subject)

N° Ref.	PhD subject	Keywords	ED	Thesis director
45061	<u>Time resolution of a highly-granular electromagnetic calorimeter and study of electroweak processes at a Higgs factory</u>	Usine de Higgs, Physique électrofaible, Résolution temporelle, Reconstruction d'évènements, Intelligence artificielle	PHENIICS	POESCHL Roman
50746	<u>Experimental study of the strong interaction with the ALERT and CLAS12 spectrometers at Jefferson Lab</u>	QCD, Particle physics, Nuclear physics	PHENIICS	DUPRE Raphael
51663	<u>Study of vector boson scattering with the ATLAS detector using Run 3 LHC data</u>	Particle physics, Standard Model, Vector boson scattering, Calorimetry, LHC, Data analysis	PHENIICS	MORANGE Nicolas
51748	<u>Search for the neutrinoless double beta decay with the SuperNEMO demonstrator</u>	neutrinos, Majorana, leptogenesis, mass	PHENIICS	SIMARD Laurent
51771	<u>The future electron-ion collider</u>	Physics, Particle physics, Hadron physics, Nuclear physics, Accelerators, Colliders	PHENIICS	MUNOZ CAMACHO Carlos
51790	<u>Charmonium production in heavy-ion collisions with A Large Ion Collide Experiment (ALICE) at the LHC</u>	Quark-gluon plasma, ultra-relativistic heavy-ion collisions, LHC, ALICE, Charmonia	PHENIICS	HADJIDAKIS Cynthia

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51889	<u>Precision cross section measurement of the dipion process and its contribution to the muon anomalous magnetic moment and to (M_Z^2) with the Belle II detector</u> α	Belle II , SuperKEKB, electron-positron collisions, muon anomalous magnetic moment	PHENIICS	ZHANG Zhiqing
52030	<u>Exploring Neutrinoless Double Beta Decay: Development and Operation of CUPID's Cutting-Edge Scintillating Bolometers</u>	Neutrino physics, Rare nuclear decays, Low temperature particle detectors	PHENIICS	GIULIANI Andrea
				LOAIZA Pia
52045	<u>CP symmetry violation in the leptonic sector with DUNE: simulation and data reconstruction at low energy in liquid argon</u>	neutrino, CP symmetry, DUNE, PMNS matrix, data analysisa, instrumentation	PHENIICS	HOUDY Thibaut
52157	<u>Measurement of the inclusive $B_s \rightarrow D_s X$ decay with Belle II detector</u>	Particle physics, QCD, Hadron physics, Standard Model	PHENIICS	KOU Emi
				MIZUK Roman
52346	<u>Study of Higgs boson pair production in high Lorentz boost events with the ATLAS detector at the LHC</u>	CERN, LHC, Higgs Boson, HH, Machine learning, Particle Physics	PHENIICS	CADAMURO Luca
52353	<u>Study of B_c rare decays</u>	B_c semileptonic decays, B_c annihilation decays	PHENIICS	BARSUK Sergey

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52377	<u>Associated production of charmonium with the LHCb experiment</u>	charmonium, QCD	PHENIICS	BARSUK Sergey
53464	<u>Measurement of the double Higgs boson cross section in the bb-gamma gamma channel with Simulation Based Inference in the ATLAS experiment</u>	Higgs boson, machine learning, LHC, Simulation Based Inference	PHENIICS	ROUSSEAU David
53678	<u>Sondre les distributions de partons dans les noyaux via la production de quarks lourds</u>	PDFs nucléaires, quarks lourds, quarkonia, gluons, Phenoménologie de l'interaction forte	PHENIICS	LANSBERG Jean-Philippe
53719	<u>Smoothing the critical slowing down of lattice gauge theory simulations</u>	Monte-Carlo simulations close to a critical point, Lattice Yang-Mills theory, Event Chain Monte-Carlo and its applications to quantum field theory	PHENIICS	BLOSSIER Benoît
56915	<u>The path of hadronic and leptonic flavors towards new physics</u>	Standard Model, Particle Physics, Flavors, nonperturbative method, effective theory, symmetries and models	PHENIICS	ABADA Asmâa BECIREVIC Damir
57070	<u>Measurement of vector boson scattering with the ATLAS detector using data from LHC Run-</u>	vector boson scattering , data analysis, LHC-CERN,	PHENIICS	VAROUCHAS Dimitris

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	<u>3. Participation in the construction of the ATLAS tracker for the High Luminosity phase of the LHC.</u>	Instrumentation, DéTECTEUR à Pixels, Control de qualité		ICONOMIDOU-FAYARD Lydia
57197	<u>Implementing a monochromatic operation mode in FCC-ee and possible experiment testing</u>	optics design, beam dynamics, beam-beam, monochromatization	PHENIICS	FAUS-GOLFE Angeles
				ZOMER Fabian

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N° Ref.	PhD subject	Keywords	ED	Thesis director
53278	<u>Impact of temporality on uncertainties associated with pu multi-recycling strategies with the class cycle simulation code</u>	nuclear energy, fuel cycle, simulation, uncertainties	PHENIICS	ERNOULT Marc

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N° Ref.	PhD subject	Keywords	ED	Thesis director
51453	Lifetimes of excited states in neutron-rich copper isotopes	exotic nuclei, gamma spectroscopy, structure nuclear, cuivre, beta decay	PHENIICS	FRANCHOO Serge
52038	Search for the tetra-neutron Isobaric Analog State in 4H : The case for the 6He(p,3He) reaction	structure nucléaire, noyaux neutres, réactions directes, détection particules-gamma	PHENIICS	ASSIE Marlène
52078				BEAUMEL Didier
52082	Studies of pion-Carbon interactions with HADES as a benchmark for heavy-ion and neutrino-nucleus reaction modeling.	hadronic physics, pion-nucleus interactions, baryonic resonances	PHENIICS	RAMSTEIN Béatrice
	Heavy and super heavy nuclei, commissioning of SIRIUS@S3 and upgrade of the SIRIUS detector	nuclear structure, heavy nuclei, alpha, gamma, electron spectroscopy, X-ray spectroscopy	PHENIICS	LOPEZ-MARTENS Araceli
52125				HAUSCHILD Karl
	Pseudospin symmetry and shell structure evolution in the 78Ni region: the quest for core-breaking states in magic 80Zn	Nuclear Structure, Gamma spectroscopy, Nuclear Shell model, fission	PHENIICS	LEBOIS Matthieu
52235				VERNEY David
	Nuclear structure of heavy nuclei around Z=104 through prompt gamma-ray spectroscopy: exploring the island of stability of superheavy elements	Nuclear structure, Heavy nuclei, Super heavy nuclei, Fission, alpha, gamma	PHENIICS	KORICHI Amel

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52248	<u>Laser spectroscopy of radionuclides and development of experimental methods using the S3 Low Energy Branch</u>	Laser spectroscopy, Nuclear structure, Low-energy instrumentation, Ion trap	PHENIICS	MANEA Vladimir
52248	<u>Nuclear structure of exotic nuclei around ^{132}Sn and ^{208}Pb</u>	nuclear structure, spectroscopy, lifetimes, r process	PHENIICS	LOZEVA Radomira
				ASTIER Alain
55031	<u>Correlations in Four-body Systems in Atomic Nuclei: Quartetting and Alpha Particle</u>	structure nucléaire, particule alpha, quartetting	PHENIICS	KHAN Elias
				EBRAN Jean-Paul

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N° Ref.	PhD subject	Keywords	ED	Thesis director
52003	<u>Development, commissioning and operation of optical fabry-perot resonators delivering several hundreds of kw in particle accelerators</u>	laser, résonateur optique, Fabry-Perot, Accélérateurs, sources X	PHENIICS	MARTENS Aurélien
				NUTARELLI Danièle
51784	<u>Optimizing Laser-Plasma Accelerators through Machine Learning</u>	laser-plasma, machine learning, accelerators, plasma, high intensity laser	PHENIICS	ZOMER Fabian
				CASSOU Kevin
51793	<u>Development of laser plasma components for accelerators operating at high repetition rate</u>	Acceleration laser-plsama , plasma , accelerateur , dynamique des fluides , optique, micro mechanics	PHENIICS	ZOMER Fabian
				CASSOU Kevin
54914	<u>Optimization and measurements of the X-ray beam parameters of the ThomX Compton source depending on the incident beams (electrons and laser)</u>	Compton Source, Optics, Accelerator Physics, Commissioning, X-rays, Fabry-Perot cavity	PHENIICS	DUPRAZ Kevin
				JACQUET Marie
57165	<u>Design and optimization of performance for a high-power, high-efficiency multi-beam, multi-stage IOT amplifier tube for a particle accelerator.</u>	amplifier tube, high-efficiency, high-power, IOT	PHENIICS	MARTENS Aurélien
57197	<u>Implementing a monochromatic operation mode in FCC-ee and possible experiment testing</u>	optics design, beam dynamics, beam-beam, monochromatization	PHENIICS	FAUS-GOLFE Angeles

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N° Ref.	PhD subject	Keywords	ED	Thesis director
51887	<u>Description of Neutrino Oscillations Emitted from Stellar Objects Using Quantum Computers</u>	Theoretical physics, quantum computing, neutrinos, complex quantum problems, quantum information theory, Many-Body problem	PHENIICS	LACROIX Denis

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N° Ref.	PhD subject	Keywords	ED	Thesis director
51818	Measurement of the equation of state of dark energy from type Ia supernovae in the ZTF-II and LSST surveys	cosmology, dark energy, Hubble diagram, supernovae	PHENIICS	NEVEU Jérémie
				MONIEZ Marc
51973	Chasing gamma rays and neutrinos at EeV energies with the Pierre Auger Observatory	ultra-high energy cosmic rays, photons and neutrinos, sources and propagation of cosmic rays, extensive air showers, super heavy dark matter, cosmic strings	PHENIICS	DELIGNY Olivier
				GHIA Piera Luisa
52197	Hunting for new physics with Simons Observatory first cosmological data	Cosmology, CMB	PHENIICS	LOUIS Thibaut
				HENROT-VERSILLE Sophie
52730	Searching for gravitational-wave and gamma-ray transients from merging compact objects	gravitational waves, gamma ray bursts, neutron stars, black holes, Virgo, LIGO	PHENIICS	DAL CANTON Tito
				LEROY Nicolas
52315	4D mapping of blazars: from optical to γ-ray emission	AGN, blazar, time-domain astronomy, data analysis	PHENIICS	BITEAU Jonathan
				PELOTON Julien

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51974	<u>Thermal and magnetotransport properties across a superconductor-insulator transition</u>	Superconductivity, Disordered systems, Thermal transport, Thermalization of quantum systems, Quantum Phase Transition	PIF 564	MARRACHE Claire
				SENGUPTA Shamashis
55656	<u>Towards high performance and advanced control of laser-driver for laser wakefield accelerator</u>	laser, femtosecond, deep learning, machine learning, laser plasma acceleration, command control	EDOM	KAZAMIAS Sophie

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52780	Dark matter detection based on innovative cryogenic devices for the TESSERACT experiment	Ge cryogenic detectors, Dark matter	PHENIICS	MARNIEROS Stefanos
57447	Machine learning algorithms for the analysis of mass spectra by time of flight with a gold nanoparticle probe: classification, quantification and identification of complex components	Ion-matter interaction, Mass spectrometry, Surface analysis, Artificial Intelligence, Deep Learning	PHENIICS	LAFAGE Vincent

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53527	<u>Commissioning of the ThomX imaging system and beam characterization for radiobiology and radiotherapy applications</u>	Compton source, X-rays, Accelerator, Imaging/Tomography, Dosimetry, Commissioning	PHENIICS	JACQUET Marie
55652	<u>Development and implementation of ion beam monitoring tools for the BioALTO preclinical irradiation platform</u>	Beam monitoring, Dosimetry, Pré-clinical irradiation platform, Nuclear Instrumentation, hadrontherapy	PHENIICS	LANIECE Philippe MOUCHARD Quentin

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N° Ref.	PhD subject	Keywords	ED	Thesis director
53320	<u>Solving challenges in Comparative Social Network Analysis</u>	social networks, temporal graphs, data analysis, ethology	PHENIICS	PLASZCZYNSKI Stéphane