

ITI QMat – QuanTEdu Scientific Day

June 6th, 2024, IPCMS Strasbourg

Program (morning)

9h00-9h20 Welcome, summary of the ITI QMat and QuanTEdu scientific objectives, goals of the day (Silviu COLIS, IPCMS)

9h20-9h40 “Confined synthetic approaches to layered multifunctional heterostructures and 2D magnets” (Guillaume ROGEZ, IPCMS)

9h40-10h00 “Targeted single particle tracking with upconverting nanoparticles” (Frédéric PRZYBILLA, LPB)

10h00-10h20 “Optical spectroscopy and nanoscopy of van der Waals heterostructures” (Stéphane BERCIAUD, IPCMS)

Coffee Break

10h50-11h10 “Local potential functional embedding theory on its way towards quantum chemical computing” (Emmanuel FROMAGER, IC)

11h10-11h30 “Higgs Boson couplings to heavy quarks in the future electron positron colliders and development of CMOS pixels sensors for the tracking system” (Ziad EL BITAR, IPHC)

11h30-11h50 “Tailoring the orbital physics in infinite-layer nickelates” (Daniele PREZIOSI, IPCMS)

11h50-12h10 “Quantum spintronic energy harvesters” (Martin BOWEN, IPCMS)

Program (afternoon)

14h00-14h20 “Amorphous nanomaterials in qubits and pcmems: quantum tunneling and thermal transport by first-principles, enhanced sampling and machine learning” (Mauro BOERO, IPCMS)

14h20-14h40 “Single-spin quantum sensing: A molecule-on-tip approach” (Laurent LIMOT, IPCMS)

14h40-15h00 “Search for CP violation in the Tau Yukawa coupling with LHC’s Run 3 data recorded by the CMS experiment” (Anne-Catherine LE BIHAN, IPHC)

Coffee Break

15h30-16h15 **General Seminar** : “Physics opportunities of the Future circular Collider”
(Patrizia AZZI – CERN / Université de Padova)

16h15-17h00 General information session (presentation of the ITI, presentation of the committees, question session) (Matthieu BAILLEUL, IPCMS)

17h00-19h00 Poster Session (with Beer & Bretzel)

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