

JOURNÉES NATIONALES DES DOCTORANTS ET DES JEUNES CHERCHEURS



Royaume du Maroc
Académie Hassan II
des Sciences et Techniques



PROGRAMME SCIENTIFIQUE

15,16,17 Juillet 2021

Faculté des Sciences de Rabat

Jeudi 15 Juillet 2021 Amphi Belmahi-FSR

8:30-9:00 **Accueil des participants**

09:00-09:30 **Mot d'Ouverture**

Omar FASSI-FEHRI Secrétaire perpétuel de l'Académie Hassan II des Sciences et Techniques

Mohammed REGRAGUI Doyen de la Faculté des Sciences de Rabat

09:30-10:30 **Conférence Inaugurale**

Mosto BOUSMINA Chancelier de l'Académie Hassan II des Sciences et Techniques

Président de l'Université Euro-Méditerranéenne de Fès

10:30-10:45 **Pause Café et Photo de souvenir**

Session 1

10h45-11h00 **M. Khenfouch**, Faculté des Sciences Appliquées, Ait Melloul-Agadir

The journey of a nanomaterial

11h00-11h15 **H. Harhar**, Faculté des Sciences de Rabat

L'arganier: de l'arbre à la bouteille

11h15-11h30 **. Y. Nioua**, Faculty of Sciences, Kénitra

Modeling the dc electrical conductivity of a particle-reinforced polymer composites

11h30-11h45 : **F. Z. Ramadan**, EST, Salé

Dynamics of magnetic skyrmions in 2d materials

11h45-12h00 : **S. Belhouideg**, Faculté Polydisciplinaire Beni Mellal

Technologie d'impression 3D : Enjeux et positionnement

12h00-12h15 : **M. Hamzah**, Faculty of Science Dhar El Mahraz, Fez

Advanced nanostructures: main physical properties

12h15-12h30 : **F. Goumrhar**, ESEF, El Jadida

Magnetism in bulk compounds

Discussion

12:45-14:30 **Pause Déjeuner**

Session 2

14h30-14h45 : **S. Harir** CRMEF, Settat

Aspects électroniques et magnétiques de systèmes de spin : Applications à l'information quantique

14h45-15h00: **H. El Hadfi**, Faculty of Sciences, Rabat

Fisher and skew information under decoherence effects

15h00- 15h15 : **A. Errehymy**, Faculty of Sciences Ain Chock , Casablanca

Anisotropic compact stars with mit bag model in $f(R,T)$ -gravity

15h15-15h30: **A. El Achab**, Faculty of Sciences, Marrakech

Weierstrass elliptic function and dynamical behaviour of traveling wave solutions

15h30-15h45: M. Amazoug, *École Normale Supérieure, Rabat*

Transfert des corrélations quantiques dans les systèmes optomécaniques

15h45-16h00: . Khedif, *Faculté des Sciences Ain Chock, Casablanca*

Information quantique locale de Fisher et les corrélations dérivées de l'information de Wigner–Yanase

16h00-16h15 : Discussion

Pause de 15 min

Session 3 Communications par affiche

K. Sadki, *Molecular dynamics simulation on mechanical and thermo-elastic properties of 2d materials.*

Y. Alaoui, *Synthesis and characterization of some new family of phosphate glass waste forms*

R. Bougassa, *Wastewater depollution system: the case of olive mill wastewater (OMW).*

C. Kasbaoui,

N. El Ghouali, *Synthèse et étude structurale des polymères nano-composites de noire de carbone.*

A. Ait Taleb, *Electronic and magnetic properties of silicene by light rare-earth metal substituted doping.*

C. Ibbur, *thermodynamic study of Cu-In-Sn-Zn alloys as new Pb-free solders.*

A. Elbahri, *P-wave superconductors and their topological properties.*

A. Elkhrou, *Electronic and magnetic properties of La- and Sn doped SrRuO₃*

J. Hmouch, *Corrélations quantiques des états gaussiens bipartites dans le système optomecanique lumiere-miroir.*

R-A. Lahmam, *An aquaponics system.*

M. El Mouzahim, *synthèse et caractérisation d'un film composite à base d'argile naturelle pour l' agroalimentaire.*

O. Barzali, *Caractérisation et étude physico-chimique des verres du système PBO-B₂O₃-P₂O₅.*

H. Hajjaoui, *Corrosion des aciers inoxydables austénitiques en milieu phosphoriques.*

C. Kasbaoui, *Etude des propriétés des alliages Heusler quaternaire type CoFeCrZ (Z=P,AS,SB)*

M. Hammani, *Realization of the quantum Toffoli gate based on a six-level atomic system.*

A. Kaaouass, *Synthesis and characterization of the boro-vanadate glasses.*

A. El Ghazrani, *Atomistic simulations for magnetic core-shell materials*

Vendredi 16 Juillet 2021

Amphi Belmahi-FSR

Session 4

08h30-08h40 : M. Lazrek, *Faculty of Sciences-El Jadida*

Propagation of vortex hermite-cosh-gaussian beams through a gradient-index medium

08h40-08h50: B. Amghar *Faculty of Sciences, Rabat*

Des espaces de Hilbert aux variétés d'états quantiques

08h50-09h00: A. Ait Ben Mennana, *Faculty of Sciences Semlalia, Marrakech*

Résonance géante dipolaire dans les noyaux Sm avec la méthode TDHF

09h00-09h10: S. Abaach, *Faculty of Sciences, Rabat*

Pairwise quantum correlations in four-level QD systems

09h10-09h20: M. Krab, *Faculté Polydisciplinaire, Béni Mellal*

Light charged HIGGS boson at the LHC in the 2HDM

09h20-09h30: M. Jakha, *Polydisciplinary Faculty, Beni Mellal*

Influence of intense laser fields on measurable quantities in W – boson decay

09h30-09h40: A. Ait Ben Hammou, *FSSM, Marrakesh*

Effect of Coriolis interaction with different deformation-dependent mass coefficients on the structure of heavy odd-mass nuclei

09h40-09h50: Z. Dahbi, *Faculty of Sciences, Rabat*

Quantum programming

09h50-10h00: K. Elbourakadi, *Faculty of Sciences Ben M'sik, Casablanca*

Gauss Bonnet inflation, an alternative description of the early universe

10h00- 10h10: M. Yaalou, *Faculty of Sciences-El Jadida*

The intensity evolution of vortex hermite cosine-hyperbolic-gaussian beams in strongly nonlocal nonlinear media

10h10- 10h20: T. Akroud, *Ecole Normale supérieure, Casablanca*

Charge and magnetic properties of 1d extended hubbard model

Discussion

PAUSE de 15 min

Session 5

11h00-11h10: H. Ouarrad, *Faculté des Sciences, Rabat*

Tailoring optoelectronic behaviour of C, Si and CSi QDs

11h10-11h20: A. Elidrysy, *Higher Normal School, Casablanca*

Ground state phase diagrams and magnetic properties of a 3D mixed Ising antiferromagnetic

11h20-11h30: I. Serifi, *Faculté des Sciences, Rabat*

Electron-phonon superconductivity in mono layers materials

11h30-11h40: A. Farchakh, *Faculty of Sciences Ben M'sik, Casablanca*

Magnetization plateaus in a squared nanotube with spin $\frac{1}{2}$ by the effective field theory

11h40-11h50: M-H. Kourra, *Faculté des Sciences, Rabat*

Matériaux 2d hybrides et applications potentielles

11h50-12h00: A. El Kordy, *Faculté des sciences, Meknès*

Elaboration et caractérisation d'une nouvelle membrane composite Argile/zéolithe : dépollution des effluents liquide

12h00-12h10: N. Al-Jadabi, *Faculté des Sciences, Rabat*

Effectiveness of olive leaves powder as a natural coagulant aid in domestic wastewater treatment

12h10-12h20: Y. Elouafy, *Faculté des Sciences, Rabat*

Influence de la méthode d'extraction sur la composition chimique et stérique de l'huile de la plante (NC)

12h20- 12h30: A. Er-rafi, *Faculté des Sciences, Rabat*

Synthèse et caractérisation des verres de K-Mo-P

12h30- 12h40: A. Es-said, *Faculté des Sciences, Rabat*

Etude de l'adsorption et la sélectivité des métaux lourds de la solution aqueuse vis-à-vis le phosphogypse

12h40-12h50: F. Alloun, *Faculté des Sciences, Rabat*

Synthesis and structural characterization of new phosphates based on transition metals (Co, Fe)

Discussion

13:00-15:00 Pause déjeuner

Session 6

15h00- 15h10: M. Ouali, *Polydisciplinary Faculty, Beni Mellal*

Z boson production at the resonance in the presence of a circularly laser field

15h10- 15h20: M. Ziane, *Faculté des Sciences de Rabat*

Non-gaussian entanglement and phase space

17h30- 17h40: M. Ouhammou, *Polydisciplinary Faculty, Beni Mellal*

Higgs-Strahlung boson production in the presence of a circularly polarized laser field

17h40- 17h50: F. Benabdallah, *Faculté des Sciences de Rabat*

Dynamique des corrélations quantiques pour un système qubitqutrit dans un canal perturbé

17h50- 18h00: K. Abazine, *Faculty of Sciences, Kénitra*

Conduction processes and thermal properties in pmma matrices filled with PPY particles

18h00- 18h10: H. Akarni, *Faculté des Sciences Ben M'sick, Casablanca*

Modélisation analytique et numérique de l'interaction houle-marche rectangulaire

18h10- 18h20: R. Benhammou, *Faculty of applied sciences, Ait-Melloul-Agadir*

Dynamics of geometric measures of quantum discord in 2-qubits Heisenberg system with DM interaction

18h20- 18h30 S. El Asri, *Polydisciplinary Faculty, Beni Mellal*

Elastic scattering of a muon neutrino by an electron in the presence of a circularly polarized laser field

Discussion

Samedi 17 Juillet 2021

Communications en ligne

Session 7

08h30-08h45: J. El Qars, *Faculté des Sciences Appliquées, Ait Melloul-Agadir*

Mesures entropiques des corrélations totales et quantiques dans un état gaussien bimode

08h45-09h00: K. El Anouz, *FST, Al-Hoceima*

Study of markovianity and non-markovianity

09h00-09h10: L. Bakmou, *Faculté des Sciences-Rabat*

Multiparameter quantum estimation theory in quantum gaussian states

09h10-09h20: J. Ou aali, *Polydisciplinary Faculty, Beni Mellal*

Naturalness implications within the two-real-scalar-singlet beyond the SM

09h20-09h30: L. Chakhchi, *Faculté des Sciences, Agadir*

Thermal image and phase transitions of charged ads black holes using shadow analysis

09h30-09h40: M. Hammani, *Faculté Des Sciences Ben M'Sik, Casablanca.*

Realization of the quantum toffoli gate based on a six-level atomic system

09h40- 09h50: A. El Aroui, *Faculty of Sciences, Agadir*

Thermal quantum correlations in two-qubit XXZ Heisenberg model with interactions

09h50- 10h00: A. Kari, *Faculty of Sciences Ben M'sik, Casablanca*

Fixed point theorems and applications

10h00- 10h10: I. Sitli, *Faculty of Sciences Ben M'sik, Casablanca*

Discrete-time positive periodic systems with bounded disturbances

10h10- 10h20: Y. Lahlou, *Faculté des Sciences, Rabat*

Corrélations quantiques plus générales dans un système optomécanique de deux miroirs mobiles

10h20- 10h30 : S. Mouslih, *Polydisciplinary Faculty, Beni Mellal*

New phenomena in laser-assisted leptonic decays of the negatively charged boson

Discussion

Session 8

10h45-11h00: A. Belouad, *Faculty of Sciences, El Jadida*

Scattering in monolayer molybdenum disulfide QD

11h00-11h10: N. Mediane, *Faculté des Sciences-Rabat*

First principles calculations of magnetic properties of GeC doped with TM

11h10-11h20: Y. El Krimi, *Faculty of Science Dhar El Mahraz, Fez*

Structural, electronic and magnetic properties of CO₂CrGa HEUSLER: first-principles prediction

11h20-11h30: J. Bahar, *Ecole Normale Supérieure, Casablanca*

Investigation of nucleation and growth mechanism of ZnO and ZnO doped bi electrodeposited on ITO substrat

11h30-11h40: S. Aghris, *Faculté Polydisciplinaire, Khouribga*

Paramètres influant sur la surface du carbone graphite

11h40- 11h50: F. Z. Zanane, *Faculté des Sciences, Rabat*

Thermal conductivity in graphene heterosrtructures: a molecular dynamics study

11h50- 12h00: M. Al-Hattab, *Faculty of Polydisciplinary Beni Mellal*

Numerical simulation and optimization of a new gase-based solar cell system using scaps-1d software

12h00- 12h10: A. Nfissi, *Faculty of Sciences-DM, Fez*

Dielectric and piezoelectric and properties of sol gel processed Ce-doped BaTi_{0.97}Y_{0.03}O₃ ceramics

12h10- 12h20: H. Benzehoua, *Faculty of Sciences, El Jadida*

Behaviour of efficiency in a maritime environment

12h20- 12h30: R. Chami, *High school of technology, Casablanca*

Etude des propriétés physico-chimiques des matériaux perovskites pour le photovoltaïque

Discussion

Pause de 1h15

Session 9

13h45- 14h00: G. Aziate, *Faculté des Sciences, Rabat*

Mild steel corrosion mitigation of two kind of inhibitors in HCl 1m media

14h00- 14h10: R. Chikri, *Faculty of Science Semlalia, Marrakech,*

Applications of sugar scum-sawdust composite for dyes removal from aqueous solutions

14h10- 14h20: H. El Moudden, *Faculté des Sciences, Rabat*

Olive mill wastewater polyphenol-based extract as a vegetable oil shelf life extending additive

14h20- 14h30: M. Hrimla, *Faculté Polydisciplinaire-Safi*

Synthèse organique, étude électrochimique d'un nouveau dérivé de 1,2,3-triazole

14h30- 14h40: N. Ajermoun, *Polydisciplinary faculty, Khouribga*

Détermination électrochimique de thiamethoxam sur la surface d'une électrode de graphite modifié

14h40- 14h50: Z. L. El Idrissi, *Faculty of Sciences, Rabat*

Effect of extraction method and specie on the chemical composition, quality parameters and antioxidant activity of peanut oil from Morocco

14h50- 15h00: A. Nablousi, *Faculté Poly Disciplinaire-Safi*

Use of safiot clay as potential adsorbent for the removal of cationic dyes from aqueous media: equilibrium, kinetics, adsorption isotherms, thermodynamics studies

Discussion

Session 10

15h20- 15h30: E.M. Tari, Faculty of Sciences, El Jadida

The wenzel-kramers-brillouin approximation for light scattering by horizontally oriented prismatic particles

15h30- 15h40: C. El Haimer, Ecole Normale Supérieure, Casablanca

Theoretical study of the reaction between secondary amines and CIS/TRANS-(+)-4R-LIMONENE oxide by DFT

15h40- 15h50: M. Saaoud, Faculté des Sciences, Rabat

Molecular dynamics simulations on tensile behaviors of layered borophene: effects of strain and defects vacancy

15h50- 16h00: D. Kada, Hassan II University of Casablanca, Casablanca

Modélisation mathématique en temps discret de la dynamique de la propagation du COVID-19 en multi-régions

16h10- 16h20: G. Ennakhly, Faculté des Sciences Ben M'Sick, Casablanca

Reliability estimation of photovoltaic system under the influence of dust deposition

16h20- 16h30: S. Belhamra, Faculty of Science Dhar El Mahraz, Fez

Study of magnetic, thermodynamic properties and magnetocaloric effect of $LaXO_3$

16h30- 16h40: M. Ragragui, Faculté des Sciences, Rabat

Topological phases protected by crystalline symmetries in rock-salt structures

Session 11 : Communication par affiche en ligne

S. M'Zerd, Faculté des sciences Dhar Mehraz, Fez, *simultaneous effects of electron-lo-phonon correction and magnetic field on the diamagnetic susceptibility in spherical core/shell semiconductor quantum dots*

A. Ouedrhiri, École Normale Supérieure, Casablanca, *Isotherm and kinetic studies of adsorption of methylene blue using activated carbon from Argan shells*

Y. Ezaier, École Normale Supérieure, Casablanca, *The deposition-diffusion competition effect on the morphological properties of growth interfaces*

A. Waqdim, Polydisciplinary Faculty, Beni Mellal, *Introduction to density functional theory and its applications*

Clôture des journées

Comité Local d'Organisation

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Centre de Physique Mathématique (CPM)
Réseau National des Jeunes Chercheurs en Sciences

Coordonnateurs des journées

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Cette manifestation scientifique se déroule en mode hybride