

PROGRAM

of the PHYSICS CONFERENCE TIM – 10

November 25th - 27th 2010

WEST UNIVERSITY OF TIMISOARA

THURSDAY November 25th, 2010

13:00 – 16:00	Participants Registration AULA MAGNA - WEST UNIVERSITY
14:00 – 19:00	WORKSHOP “KNOWLEDGE, CULTURE, SCIENCE - THE FUNDAMENT OF QUALITY OF LIFE IN SOCIETY” Room: AULA MAGNA <i>Chairman: Prof.dr. DANIEL VIZMAN</i>
14.00 – 14.30	Prof.dr. Titus Beu, <i>Babeş-Bolyai University, Cluj-Napoca, Romania</i> National patterns in scientific and technological culture
14.30 – 15.00	Prof.dr. Ioan Schneider <i>University of Le Havre, France</i> Reactive collisions and applications: from stars to our every-day life
15.00 – 15.30	Dr. Victor Kuncser <i>National Institute of Materials Physics Bucharest-Magurele, Romania</i> Nanomagnetism: new trends and its impact on the daily life
15.30 – 16.00	Dr. Petre Badica <i>National Institute of Materials Physics Bucharest-Magurele, Romania</i> Beautiful Technologies of Superconductors and of Some Selected Materials
16.00 – 16.30	COFFEE BREAK
	Room: AULA MAGNA <i>Chairman: Prof. dr. TITUS BEU</i>
16.30 – 17.00	Dr. Cristian-Mihail Teodorescu <i>National Institute of Materials Physics Bucharest-Magurele, Romania</i> Surface and interface science in Romania. A status review
17.00 – 17.30	Prof.dr. Virgil Baran <i>University of Bucharest, Romania</i> Collective dynamics of quark-gluon plasma: chiral symmetry breaking effects
17.30 – 18.00	Prof.dr. Adrian Neagu <i>Victor Babes University of Medicine and Pharmacy Timisoara, Romania</i> Methods of Biological Physics in Tissue Engineering
18.00 – 18.30	Prof.dr. Daniel Vizman <i>West University of Timisoara, Romania</i> Crystals - key materials for modern life and technology
18.30 – 18.45	Prof.dr. Snezana Boskovic <i>Institute of Nuclear Sciences Vinca, Serbia</i> Nanosized Solid Solutions Powders Obtained by Different Chemical Procedures
18.45 – 19.00	Dr. Madalin Bunoiu <i>West University of Timisoara, Romania</i> Crystal growth and characterization of multicrystalline silicon for photovoltaic applications
19.30	DINNER – Restaurant Fabrica de Bere (Beer Factory Restaurant)

FRIDAY November 26th, 2010

8:00 – 8:50	<p>Participants Registration</p> <p>AULA MAGNA WEST UNIVERSITY</p>
8:50 – 9:00	<p>The Opening Ceremony of the TIM – 10 Conference</p> <p>room: AULA MAGNA</p>
9:00 – 11:00	<p>INVITED LECTURES</p> <p>Room: AULA MAGNA</p> <p><i>Chairman: P.C.FANNIN</i></p>
9:00 – 9:30	<p>Invited Lecture I01</p> <p>MAGNETIC BEHAVIOUR OF COMPOUNDS DERIVED FROM CaCu₅-TYPE STRUCTURE</p> <p>EMIL BURZO</p> <p><i>Faculty of Physics, Babes-Bolyai University, Cluj-Napoca</i></p>
9:30 – 10:00	<p>Invited Lecture I02</p> <p>CUBIC CRYSTALS FROM CUBIC COLLOIDS</p> <p>L. ROSSI¹, S. SACANNA², W. T. M. IRVINE², P. M. CHAIKIN², D. J. PINE² AND <u>ALBERT P. PHILIPSE</u>¹</p> <p><i>¹Van't Hoff Laboratory for Physical and Colloid Chemistry, Debye Institute, Utrecht University, Padualaan 8, 3584CH Utrecht, The Netherlands,</i> <i>²Center for Soft Matter Research, Department of Physics, New York University, 4 Washington Place, 10003 New York, USA</i></p>
10:00 – 10:30	<p>Invited Lecture I03</p> <p>ADOMIAN DECOMPOSITION METHOD FOR THE QUARK-GLUON-PLASMA MODEL</p> <p><u>RADU CONSTANTINESCU, C. IONESCU, M. STOICESCU</u></p> <p><i>Department of Theoretical Physics, University of Craiova, 13 A.I.Cuza, 200 585 Craiova, Romania</i></p>
10:30 – 11:00	<p>Invited Lecture I04</p> <p>SYNCHRONOUS FLUORESCENCE SPECTROSCOPY: PRINCIPLES AND APPLICATIONS IN MEDICINE AND BIOLOGY</p> <p>MIROSLAV D. DRAMIĆANIN</p> <p><i>Vinča Institute of Nuclear Sciences, University of Belgrade, P.O. Box 522, 11001 Belgrade, Serbia</i></p>

11:00 – 11:15	Coffee Break – Pauza de cafea
11 :15 – 12 :45	INVITED LECTURES Room: AULA MAGNA <i>Chairman: E. BURZO</i>
11:15 – 11:45	Invited Lecture I05 CARBON BASED NANOSTRUCTURES: SYNTHESIS, CHARACTERIZATION AND APPLICATIONS <u>VICTOR CIUPINA</u>¹, R.VLADOIU¹, I. MORJAN², E. MAMUT¹, G. PRODAN¹, I. M. OANCEA-STANESCU¹ <i>¹ University of Constanta, Mamaia Avenue 124, Constanta, 900527, ROMANIA</i> <i>²National Institute for Laser Plasma and Radiation Physics, Magurele, Romania</i>
11:45 – 12:15	Invited Lecture I06 THEORETICAL MODELLING OF SUB-WAVELENGTH PLASMONIC NANO- STRUCTURES NICOLAE C. PANOIU <i>Department of Electronic and Electrical Engineering, University College London, Torrington Place, London WC1E 7JE, UK</i>
12:15 – 12:45	Invited Lecture I07 THEORETICAL CALCULATION FOR THE IONIZATION OF MOLECULES BY SHORT STRONG LASER PULSES <u>LADISLAU NAGY</u>, SÁNDOR BORBÉLY <i>Faculty of Physic, Babeş-Bolyai University, 400084 Cluj-Napoca, Romania</i>
12:45 – 14:45	LUNCH – PAUZA DE MASA <i>(Swedish buffet in the Conference location)</i>

14:30– 17:30	ORAL SESSIONS		
	Section: TCP Room: F206 <i>Chairmen: E. PAPP</i> <i>C. BIZDADEA</i>	Section: CMP Room: AULA MAGNA <i>Chairmen: N. C.PANOIU</i> <i>D. VIZMAN</i>	Section: API Room: F205 <i>Chairpersons: A. BALINT</i> <i>D. CHICEA</i>
14:30– 14:45	IN MEMORIAM: TIBOR TORO D. VULCANOV		
14:45 – 15:00	TCP-O01 NOTE ON THE HAMILTONIAN FORMALISM: ONE- DIMENSIONAL SYSTEMS C. BIZDADEA, M. M. BĂRCAN, I. NEGRU, S. O. SALIU <i>Faculty of Physics,</i> <i>University of Craiova, 13 A.</i> <i>I. Cuza Str., Craiova</i> <i>200585, Romania</i>	CMP-O01 RADIATION-INDUCED FRAGMENTATION OF FULLERENES TITUS A. BEU <i>University Babeş-Bolyai,</i> <i>Faculty of Physics, Cluj-</i> <i>Napoca, Romania</i>	API-O01 LASER FABRICATED SURFACE NANOSTRUCTURES ON VANADIUM FOILS B. FARKAS¹, M. FÜLE¹, A. M. BÁLINT², L. NÁNAI ¹ <i>Department of General and</i> <i>Environmental Physics,</i> <i>University of Szeged,</i> <i>Boldogasszony sgt. 6, H-6725</i> <i>Szeged</i> ² <i>Faculty of Physics, West</i> <i>University of Timisoara, Bulv.</i> <i>V. Parvan 4, RO-300223</i> <i>Timisoara</i>
15:00 – 15:15	TCP-O02 BRIGHT-DARK SOLITON INTERACTION IN A MULTI-MODE OPTICAL FIBER AND THE COMPLETELY INTEGRABLE YAJIMA- OIKAWA SYSTEM ANCA VISINESCU, D. GRECU <i>Department of Theoretical</i> <i>Physics</i> <i>National Institute for</i> <i>Physics and Nuclear</i> <i>Engineering “Horia</i> <i>Hulubei”</i> <i>Bucharest, Magurele</i>	CMP-O02 Fe/Si(001) FERROMAGNETIC LAYERS: REACTIVITY, LOCAL ATOMIC STRUCTURE, AND MAGNETISM G. A. LUNGU, R. M. COSTESCU, M. A. HUŞANU, N. G. GHEORGHE <i>National Institute of Materials</i> <i>Physics, Atomistilor 105b,</i> <i>077125 Magurele-Ilfov,</i> <i>Romania</i>	API-O02 DETECTION AND CHARACTERIZATION OF SUPROXIDE RADICALS BY DEPMPO SPIN TRAPPING METHOD LAURA BOLOJAN¹, V. MICLAUS¹, G.DAMIAN² ¹ <i>Faculty of Physics, “Babes-</i> <i>Bolyai” University, Cluj-</i> <i>Napoca, Romania,</i> ² <i>Faculty of Chemistry and</i> <i>Chemical Engineering,</i> <i>“Babes –Bolyai” University,</i> <i>Cluj-Napoca, Romania</i>

<p>15:15 – 15:30</p>	<p>TCP-003 HIDDEN CONFORMAL SYMMETRIES AND THE KILLING – MAXWELL SYSTEM</p> <p>MIHAI VISINESCU</p> <p><i>Department of Theoretical Physics National Institute for Physics and Nuclear Engineering Magurele, Bucharest, Romania, EU</i></p>	<p>CMP-003 NON-LINEAR ACTIVE OPTICAL DEVICES BASED ON METALLIC PLASMON NANO-CAVITIES</p> <p><u>C. G. BIRIS</u>, N. C. PANOIU</p> <p><i>Photonics Group, Department of Electronic and Electrical Engineering, UCL, Torrington Place, London WC1E 7JE, UK</i></p>	<p>API-003 IMAGING HUMAN SERUM ALBUMIN</p> <p><u>DAN CHICEA</u>¹, LIANA MARIA CHICEA², RADU CHICEA²,</p> <p><i>¹Physics Dept., University Lucian Blaga of Sibiu, Dr. Ion Ratiu Str. 7-9, Sibiu, 550012, Romania, ²“VICTOR PAPILIAN” medical school, University Lucian Blaga of Sibiu)</i></p>
<p>15:30 – 15:45</p>	<p>TCP-004 QUANTUM ENTANGLEMENT AND QUANTUM DISCORD IN GAUSSIAN OPEN SYSTEMS</p> <p>AURELIAN ISAR</p> <p><i>Institute of Physics and Nuclear Engineering, Bucharest-Magurele, Romania</i></p>	<p>CMP-004 CONCEPT AND REALIZATION OF LOW LOSSES As_xS_{1-x} PLANAR WAVEGUIDES</p> <p>A. <u>A. POPESCU</u>, D. SAVASTRU, S. MICLOS</p> <p><i>National R&D Institute for Optoelectronics INOE2000 Magurele, 077125, Romania</i></p>	<p>API-004 STUDIES CONCERNING THE ACCUMULATION OF MINERALS AND HEAVY METALS IN FRUITING BODIES OF WILD MUSHROOMS</p> <p><u>STIHI CLAUDIA</u>¹, <u>GHEBOIANU ANCA</u>², RADULESCU CRISTIANA¹, POPESCU V. ION^{1,2}, BUSUIOC GABRIELA³, BANCUTA IULIAN²</p> <p><i>¹Valahia University of Targoviste, Faculty of Sciences and Arts, Sciences Department, Targoviste, Romania, ² Valahia University of Targoviste, Multidisciplinary Research Institute for Sciences and Technologies, Targoviste, Romania, e-mail: ³Valahia University of Targoviste, Faculty of Environmental Engineering and Biotechnologies, Targoviste, Romania</i></p>

15:45 – 16:00	<p align="center">TCP-005 ON THE COVARIANT QUANTIZATION OF MASSIVE 4-FORMS: GAUGE UNFIXING APPROACH</p> <p align="center">S. C. SARARU</p> <p align="center"><i>Faculty of Physics, University of Craiova, 13 Al. I. Cuza Str., Craiova 200585, Romania</i></p>	<p align="center">CMP-005 A METHOD FOR CALIBRATION GSD 320 QUADRUPOLE MASS SPECTROMETER FOR HYDROGEN AND DEUTERIUM GAS MIXTURES ANALYSIS</p> <p align="center"><u>ALINA STEFANESCU</u>^{1,2}, NICOLAE BIDICA¹, ANISIA BORNEA¹, ION CRISTESCU², IOAN STEFANESCU¹</p> <p align="center">¹<i>Institutul National de Cercetare-Dezvoltare pentru Tehnologii Criogenice si Izotopice</i> ²<i>Karlsruhe Institute of Technology, Germany</i></p>	<p align="center">API-005 DIELECTRIC AND GEOTECHNICAL PROPERTIES OF SOME CHARACTERISTIC SOIL SAMPLES FROM THE TIMIS PLAIN REGION</p> <p align="center"><u>RADU TOTOREANU, I. MALAESCU, C. N. MARIN</u></p> <p align="center"><i>West University of Timisoara, Faculty of Physics, Bd. V. Parvan no.4, 300223 Timisoara, Romania</i></p>
16:00 – 16:15	<p align="center">TCP-006 CONSISTENT INTERACTIONS INVOLVING DUAL FORMULATIONS OF LINEARIZED GRAVITY IN TERMS OF MASSLESS TENSOR FIELDS WITH THE MIXED SYMMETRY (k,1)</p> <p align="center">C. BIZDADEA, E. M. CIOROIANU, M. T. MIAUTA, <u>SOLANGE ODILE SALIU, S. C. SARARU</u></p> <p align="center"><i>Faculty of Physics, University of Craiova, 13 Al. I. Cuza Str., Craiova 200585, Romania</i></p>	<p align="center">CMP-006 NUMERICAL STUDY OF THE INFLUENCE OF STATIC MAGNETIC FIELDS ON THE DOPANT DISTRIBUTION IN A DIRECTIONAL SOLIDIFICATION PROCESS OF MULTI-CRYSTALLINE SILICON</p> <p align="center"><u>COSMIN TĂNASIE, ALEXANDRA POPESCU,</u> DANIEL VIZMAN</p> <p align="center"><i>Faculty of Physics, West University of Timisoara, Bd. V. Parvan 4, 300223, Timisoara, Romania</i></p>	<p align="center">API-006 ISOTOPIC DILUTION GC/MS METHOD FOR METHIONINE DETERMINATION IN BIOLOGICAL MEDIA</p> <p align="center"><u>ELENA HORJ</u>¹, ANDREEA IORDACHE², MONICA CULEA¹</p> <p align="center">¹<i>“Babes-Bolyai” University, 1 M Kogalniceanu St., Cluj-Napoca, 400084, Romania</i> ²<i>National R&D Institute of Cryogenics and Isotopic Technologies – ICSI Rm. Valcea, 4 Uzinei St., Rm. Valcea, 240050, Romania</i></p>
16:15 – 16:30	Coffee Break – Pauza de cafea		

16:30 – 16:45	<p align="center">TCP-007 EXOTIC INTERACTIONS BETWEEN WEYL GRAVITON AND MASSLESS ZERO- CHARGE SPIN-1/2 PARTICLES</p> <p align="center">E. M. CIOROIANU</p> <p align="center"><i>Faculty of Physics, University of Craiova, 13 A. I. Cuza Str., Craiova 200585, Romania</i></p>	<p align="center">CMP-007 THE INFLUENCE OF SAMARIUM SUBSTITUTION ON THE MICROSTRUCTURE AND GAS SENSITIVITY PROPERTIES IN $\text{Li}_{0.5}\text{Sm}_x\text{Fe}_{2.5-x}\text{O}_4$ FERRITE</p> <p align="center">FLORIN TUDORACHE¹, SORIN TASCU¹, FLORIN BRINZA¹, LILIANA MITOSERIU¹, MIRCEA GRIGORAS² AND PAUL DORIN POPA³</p> <p align="center"><i>¹ Alexandru Ioan Cuza University of Iasi, Faculty of Physics, Research Department of Physics</i></p> <p align="center"><i>² "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania</i></p> <p align="center"><i>³ National Institute of Research and Technical Physics-IFT Iasi, Romania</i></p>	<p align="center">API-007 FUZZY SETS THEORY APPLIED TO COMPUTE GLOBAL SOLAR IRRADIATION</p> <p align="center">REMUS STEFAN BOATA, MARIUS PAULESCU, EUGENIA TULCAN- PAULESCU, PAUL GRAVILA</p> <p align="center"><i>Faculty of Physics, West University of Timisoara, Romania</i></p>
16:45 – 17:00	<p align="center">TCP-008 COMPUTER SIMULATIONS FOR LARGE BAND GAPS IN PHOTONIC CRYSTALS</p> <p align="center">MIRCEA CIOBANU, D. SAVASTRU, A. POPESCU, S. MICLOS, M. TAUTAN</p> <p align="center"><i>National Institute of R&D for Optoelectronics – INOE2000, Bucharest- Magurele</i></p>	<p align="center">CMP-008 PPLN STRUCTURES BY E- FIELD POLING FOR PARAMETRIC INTERACTIONS IN COUNTER PROPAGATING CONFIGURATIONS</p> <p align="center">SORIN TASCU¹, P. BALDI², M. DE MICHELI², A MURARIU¹ L. MITOSERIU¹, F. TUDORACHE¹</p> <p align="center"><i>¹ Alexandru Ioan Cuza University of Iasi, Faculty of Physics, Research Department of Physics, Iasi, Romania</i></p> <p align="center"><i>² Laboratoire de Physique de la Matière Condensée, Université de Nice – Sophia Antipolis France</i></p>	<p align="center">API-008 PATTERN RECOGNITION OF AMPHETAMINES FTIR SPECTRA WITH MODIFIED PHASE-INPUT FOURIER CORRELATION</p> <p align="center">ALIN C. TEUSDEA¹, MIRELA PRAISLER²</p> <p align="center"><i>¹ University of Oradea, Faculty of Environmental Protection, Gen. Magheru 26, Oradea 410058, BH, Romania</i></p> <p align="center"><i>² University "Dunarea de Jos" of Galati, Faculty of Sciences, Domneasca 47, Galati 800008, GL, Romania</i></p>

<p>17:00 – 17:15</p>	<p>TCP-009 FREQUENCY-DEPENDENT SPIN CURRENT NOISE AND SPIN CONDUCTANCE OF QUANTUM DOTS IN THE KONDO REGIME</p> <p>CATALIN P. MOCA¹, I. WEYMANN² AND G. ZARAND³</p> <p>¹ Department of Physics, Univerisity of Oradea, Romania ² Department of Physics, Adam Mickiewicz University, 61-614 Poznan, Poland ³ Department of Theoretical physics, Institute of Physics, Budapest University of Technology and Economics, H-1521 Budapest, Hungary</p>	<p>CMP-009 NUMERICAL MODELING OF GRANULAR MEDIA WITH DEFORMABLE, COMPOSITE PARTICLES</p> <p>BOGDAN BARVINSCHI, PAUL BARVINSCHI</p> <p><i>Faculty of Physics, West University of Timisoara, Bvd. V.Parvan, no.4, 300223 Timisoara, Romania</i></p>	<p>API-009 OBTAINING MICROMETRIC MAGNETITE CRYSTALS VIA FE-EDTA THERMAL DECOMPOSITION</p> <p>MARIUS CHIRITA¹, RADU BANICA¹, ADRIAN IETA², IOAN GROZESCU¹</p> <p>¹Department of Nanocrystal Synthesis, National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara ²Department of Physics, State University of New York at Oswego, Oswego, NY</p>
<p>17:15 – 17:30</p>	<p>TCP-010 TIGHT-BINDING DESCRIPTIONS WITH SELECTED SITE DEPENDENT HOPPINGS</p> <p>C. MICU¹, E. PAPP²</p> <p>¹ North University of Baia Mare, Faculty of Science, Str. V. Babes, Nr. 62A, RO-430122 Baia Mare ² West University of Timisoara, Faculty of Physics, Bd. V. Parvan, Nr. 4, RO-300223 Timisoara</p>	<p>CMP-010 CONSERVATION THEOREMS IN PARTICLE-SPRING SYSTEMS. A NUMERICAL APPROACH</p> <p>BOGDAN BARVINSCHI</p> <p><i>Faculty of Physics, West University of Timisoara, Bvd. V.Parvan, no.4, 300223 Timisoara, Romania</i></p>	
<p>17:30 – 17:45</p>	<p>TCP-017 AN ALTERNATIVE SOLUTION TO THE TWO-BODY PROBLEM</p> <p>L. MICU</p> <p><i>Horia Hulubei National Institute for Physics and Nuclear Engineering, Bucharest-Magurele, Romania</i></p>		

17:30 – 18:00	Coffee Break – Pauza de cafea
17:30 – 19:00	POSTER SESSION I Section Theoretical and Computational Physics (TCP-P01 – TCP-P14) Section Condensed Matter Physics (CMP-P01 – CMP-P18)
20:00	CONFERENCE DINNER (“Sabres” Restaurant)

SATURDAY November 27th, 2010

8:30 – 10:00	POSTER SESSION II Section Applied Physics and Interdisciplinarity (API-P01 – API-P36)
9:00 – 10:00	Coffee Break – Pauza de cafea
10:00 – 12:00	INVITED LECTURES Room: AULA MAGNA <i>Chairman: D. VULCANOV</i>
10:00 – 10:30	Invited Lecture I 08 MAGNETIC RESONANCE APPLIED TO THE INVESTIGATION OF SPINTRONIC MATERIALS <u>L. M. Giurgiu</u>, O.Raita and A.Popa <i>National Institute for Research and Development of Isotopic and Molecular Technologies, 400293 Cluj-Napoca, P.O.Box 700, Romania</i>
10:30 – 11:00	Invited Lecture I 09 NUMERICAL SIMULATION IN CRYSTAL GROWTH. THE NEED FOR HPC CLUSTERS GHEORGHE ARDELEAN <i>Fraunhofer Institute IISB, Erlangen, Germany</i>
11:00 – 11:30	Invited Lecture I 10 ON MILNE UNIVERSE IN QUANTUM COSMOLOGY D.D. DIMITRIJEVIC, <u>GORAN S. DJORDJEVIC</u>, M. MILOSEVIC, LJ. NESIC <i>Department of Physics, Faculty of Science and Mathematics, University of Nis, Visegradaska 33, 18001Nis, Serbia</i>
11:30 – 12:00	Invited Lecture I 11 FEMTOSECOND REAL-TIME OBSERVATION OF MOLECULAR REACTION DYNAMICS ON SOLID SURFACES <u>MIHAI E. VAIDA</u>, ROBERT TCHITNGA, THORSTEN M. BERNHARDT <i>Institute of Surface Chemistry and Catalysis, University of Ulm, Ulm, Germany</i>
12:00 – 13:30	POSTER SESSION III Section Condensed Matter (CMP-P19 – CMP-P47)

12:00 – 13:30	<p style="text-align: center;">ORAL SESSION – Section: TCP Room: AULA MAGNA <i>Chairman: G.S. DJORDJEVIC</i></p>
12:00 – 12:15	<p style="text-align: center;">TCP-O11 FUNDAMENTALS OF PARTICULAR NON-STATIONARY STOCHASTIC PROCESS USED TO MODEL PARTICLE TRANSPORT IN STOCHASTIC MAGNETIC FIELD</p> <p style="text-align: center;"><u>E. M. BABALIC</u>^{1,2} AND N. I. POMETESCU¹</p> <p>¹Association Euratom-MECI Romania, Physics Faculty, University of Craiova, Str. A. I. Cuza no. 13, Cod 200585, Craiova, Romania ²IFIN-HH, Department of Theoretical Physics, Str. Atomistilor no.407, P.O.BOX MG-6, Bucharest-Magurele, Romania</p>
12:15 – 12:30	<p style="text-align: center;">TCP-O12 BOSONS GENERATION IN STRONG ELECTRIC FIELDS VIA WKB FORMALISM</p> <p style="text-align: center;">MARINA-AURA DARIESCU, CIPRIAN DARIESCU, <u>OVIDIU BUHUCIANU</u></p> <p style="text-align: center;"><i>Al. I. Cuza University, Bd. Carol I, no. 11, 700506 Iasi, Romania</i></p>
12:30 – 12:45	<p style="text-align: center;">TCP-O13 ON THE REVERSE ENGINEERING METHOD IN COSMOLOGIES WITH NON-MINIMALLY COUPLED SCALAR FIELD</p> <p style="text-align: center;">G.S. DJORDJEVIC¹, C.A. SPOREA², <u>D.N. VULCANOV</u>²</p> <p>¹Department of Physics, Faculty of Science and Mathematics, University of Nis, Visegradska 33, 18001Nis, Serbia ²Department of Theoretical and Applied Physics –“ Mircea Zăgănescu”, West University of Timișoara, B-dul. V. Pârvan no. 4, 300223, Timișoara, Romania</p>
12:45 – 13:00	<p style="text-align: center;">TCP-O14 DE SITTER SPACE AS A MOMENTUM MEASURING APPARATUS</p> <p style="text-align: center;">NISTOR NICOLAEVICI</p> <p style="text-align: center;"><i>Department of Physics, The West University of Timișoara, România</i></p>
13:00 – 13:15	<p style="text-align: center;">TCP-O15 FIRST ORDER TRANSITION AMPLITUDES OF THE DE SITTER QED AND A DYNAMICAL WELLING EFFECT</p> <p style="text-align: center;">ION I.COTAESCU, <u>COSMIN CRUCEAN</u></p> <p style="text-align: center;"><i>West University of Timisora, V.Parvan Avenue 4 RO-300223, Timisoara, Romania</i></p>
13:15 – 13:30	<p style="text-align: center;">TCP-O16 KONDO EFFECT IN PRESENCE OF MAGNETIC IMPURITIES</p> <p style="text-align: center;">MIRCEA CRISAN¹, VASILE CHIS², <u>STANCA MITRICI</u>¹</p> <p>¹University „Babes-Bolyai”, Faculty of Physics, Theoretical and Computational Physics, Kogalniceanu 1, 400084, Cluj-Napoca, ROMANIA ²University „Babes-Bolyai”, Faculty of Physics, Biomedical Physics, Kogalniceanu 1, 400084, Cluj-Napoca, ROMANIA</p>
13:30	<p style="text-align: center;">The Closing Ceremony of the TIM – 10 Conference room: AULA MAGNA</p>

I – Invited Lecture

O – Oral presentation

P – Poster presentation

CMP – Condensed Matter Physics

TCP – Theoretical and Computational Physics

API – Applied Physics and Interdisciplinarity

POSTER PRESENTATIONS

Section Condensed Matter Physics (CM)

CMP-P01	<p>FINE STRUCTURE OF OPTICAL ENERGY LEVELS SCHEME FOR BaLiF₃: Ni²⁺ L.Andreici¹ and N. M. Avram^{1,2} ¹<i>Department of Physics, West University of Timisoara, Bd. V. Parvan No. 4, 300223, Timisoara, Romania</i> ²<i>Academy of Romanian Scientists, Independentei 54, 050094-Bucharest, Romania</i></p>
CMP-P02	<p>CRYSTAL FIELD AND FIRST PRINCIPLE CALCULATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ZNCR₂O₄ SPINEL N.M.Avram^{1,2} M. G. Brik³, C. N. Avram¹, and A.S.Gruia¹ ¹<i>Department of Physics, West University of Timisoara, Bd. V. Parvan 4, Timisoara 300223, Romania</i> ²<i>Academy of Romanian Scientists, Independentei 54, Bucharest 050094, Romania</i> ³<i>Institute of Physics, University of Tartu, Riia 142, Tartu 51014, Estonia</i></p>
CMP-P03	<p>CRYSTAL FIELD AND EFFECTIVE SPIN-HAMILTONIAN PARAMETERS CALCULATION FOR CR³⁺ IONS DOPED IN LINbO₃ N. M. Avram^{1,2}, C. N. Avram¹, M. G. Brik³, M. G. Ciresan¹ ¹<i>Department of Physics, West University of Timisoara, Bd. V. Parvan 4, Timisoara 300223, Romania</i> ²<i>Academy of Romanian Scientists, Splaiul Independentei 54, Bucharest 050094, Romania</i> ³<i>Institute of Physics, University of Tartu, Riia 142, Tartu 51014, Estonia</i></p>
CMP-P04	<p>FIRST PRINCIPLES CALCULATIONS OF STRUCTURAL, ELECTRONIC AND OPTICAL PROPERTIES OF RB₂CRF₆ M.G. Brik¹, N.M. Avram^{2,3} ¹<i>Institute of Physics, University of Tartu, Riia 142, Tartu 51011, Estonia</i> ²<i>Department of Physics, West University of Timisoara, Bd. V. Parvan No. 4, 300223, Timisoara, Romania</i> ³<i>Academy of Romanian Scientists, Independentei 54, 050094-Bucharest, Romania</i></p>
CMP-P05	<p>COUPLED HEAT TRANSFER AND FLUID DYNAMICS MODELING OF INSB SOLIDIFICATION P. Barvinschi¹, F. Barvinschi² ¹<i>Faculty of Physics, West University of Timisoara, Bvd. V.Parvan, no.4, 300223 Timisoara, Romania</i> ²<i>Department of Physical Foundation of Engineering, Politehnica University of Timisoara, Bvd.V.Parvan, no.2, 300223 Timisoara, Romania</i></p>
CMP-P06	<p>MAGNETORHEOLOGICAL ELASTOMER WITH Fe AGREGATES MICROPARTICLES IN SILICONES RUBBER A. Bica¹, L. Chirigiu² ¹<i>West University of Timisoara, Faculty of Physics, Bd. V. Parvan, No.4, Timisoara,</i> ²<i>University of Medicine and Pharmacy of Craiova, Faculty of Pharmacy, Str. Petru Rares, nr.2- 4, Craiova</i></p>
CMP-P07	<p>ETCH PITS MORPHOLOGY AND DISLOCATION DISTRIBUTION IN DOUBLE-DOPED (Er, Yb):CaF₂ CRYSTALS G. Buse¹, M. Stef^{1,2}, M. Bunoiu and I. Nicoara¹ ¹<i>West University of Timisoara, Dept. of Physics, Bd. V. Parvan no. 4, 300233 Timisoara, Romania</i> ²<i>Alexandru Ioan Cuza University of Iasi, Bd. Carol I no. 11, 700506 Iasi, Romania</i></p>
CMP-P08	<p>THE EPR AND OPTICAL SPECTRA FOR COOPER IONS IN MIXED ALKALI CADMIUM PHOSPHATE GLASSES M.G.Ciresan, C.N.Avram <i>Department of Physics, West University of Timisoara, Bd. V. Parvan 4, Timisoara 300223, Romania</i></p>
CMP-P09	<p>CALCULATED EPR SPECTRA OF Cu-HZSM-5 ZEOLITES L. Cociu and D. Strugaru <i>Faculty of Physics, "Babeş-Bolyai" University, Cluj-Napoca, Romania</i></p>

CMP-P10	ILLUMINATION-DEPENDENT HF ETCHING OF ALAS SACRIFICIAL LAYERS FOR THE FORMATION OF “ROLLED UP” NANOTUBES FROM STRAINED InGaAs/GaAs FILMS R. M. Costescu <i>National Institute of Material Physics, P.O Box MG-7, 077125, Bucharest-Magurele</i>
CMP-P11	CRYSTAL FIELD PARAMETERS AND ENERGY LEVELS SCHEME CALCULATION FOR ZNGA ₂ O ₄ :ER ³⁺ M.Creanga_ and I.Cherlea <i>Department of Physics, West University of Timisoara, 300223-Timisoara, Romania</i>
CMP-P12	ENERGY LEVELS SCHEME FOR CRF ₂ S. Ivascu, C. N. Avram <i>Department of Physics, West University of Timisoara, Bd. V. Parvan, no. 4, 300223, Timisoara, Romania</i>
CMP-P13	PHYSICAL PROPERTIES OF HYBRID PHOTOVOLTAIC CELLS BASED ON CdTe NANOWIRE ARRAYS AND ORGANIC DYES THIN FILMS C. Florica¹, I. Pana¹, T. Mitran¹, L. Ion¹, I. Enculescu², V. A. Antohe¹, A. Radu¹, S. Antohe¹ ¹ <i>Faculty of Physics, University of Bucharest, P.O.Box MG-11, Magurele, Ilfov, Romania</i> ² <i>National Institute of Material Physics, Magurele, Ilfov, P.O.Box MG-7, 077125 Romania</i>
CMP-P14	SUCCESSFUL CLEANING AND STUDY OF CONTAMINATION OF Si(001) IN ULTRAHIGH VACUUM N.G. Gheorghe, A. Lungu, M. Husanu, R. Costescu <i>National Institute of Materials Physics, Atomistilor 105bis, 077125 Magurele, Romania</i>
CMP-P15	SURFACE STRUCTURE, INTERFACE REACTIVITY AND MAGNETISM OF Sm/Si(001) N.G. Gheorghe, R.M. Costescu, M.A. Husanu, G.A. Lungu, C.M. Teodorescu <i>National Institute of Materials Physics, Atomistilor 105bis, 077125 Magurele-Ilfov Romania</i>
CMP-P16	TEMPERATURE DEPENDENT RESISTIVITY AND HALL EFFECT IN PROTON IRRADIATED CdS THIN FILMS B. Guster¹, V. Ghenescu², L. Ion¹, A. Radu¹, O. Porumb¹, S. Antohe¹ ¹ <i>Faculty of Physics, University of Bucharest, 405 Atomistilor, Magurele-Ilfov, 077125, Romania</i> ² <i>Institute of Space Sciences, 409 Atomistilor, Magurele-Ilfov, 077125, Romania</i>
CMP-P17	LUMINESCENCE OF EU ³⁺ DOPED CUBIC LAYO ₃ PHOSPHOR V. Đorđević, M. G. Nikolić and M. D. Dramićanin <i>Institute of Nuclear Sciences “Vinča”, University of Belgrade, P.O. Box 522, 11001 Belgrade, Serbia</i>
CMP-P18	AB INITIO STUDIES OF MAGNETISM IN BULK MATERIALS USING LOCAL DENSITY APPROXIMATION AND GENERALIZED GRADIENT APPROXIMATION AS EXCHANGE-CORRELATION FUNCTIONALS. A COMPARATIVE STUDY M. Husanu¹, R. Costescu¹, G. A. Lungu¹, N. Gheorghe¹ and C. M. Teodorescu¹ ¹ <i>National Institute for Material Physics, Bucharest-Magurele, Atomistilor 105bis Str, P.O Box MG-7, 077125</i>
CMP-P19	LAYERED SODIUM COBALT OXIDES BY HYDROTHERMAL SYNTHESIS AND STUDY OF THE SYSTEM CO-NAOH-H ₂ O K. K. Bokinala, M. Miclau, D. H. Ursu, I. Grozescu <i>National Institute for R&D in Electrochemistry and Condensed Matter, Str. Dr. A. Paunescu Podeanu, nr.144, 300569 Timisoara, Timis, Romania</i>
CMP-P20	SYNCHRONOUS FLUORESCENCE SPECTROSCOPY IN MELANOMA DIAGNOSTICS L. Lenhardt, I. Zeković, T. Dramićanin, M. D. Dramićanin <i>Vinča Institute of Nuclear Sciences, University of Belgrade, PO Box 522, 11001 Belgrade, Serbia</i>
CMP-P21	BAND STRUCTURE AND HALF-METALLIC BEHAVIOUR OF DIGITAL FERROMAGNETIC HETEROSTRUCTURES E.-V. Macocian¹, F. Beiușeanu¹, C. Horea¹, T. Jurcuț¹, S. Filip¹, L. Chioncel^{1,2} ¹ <i>Department of Physics, University of Oradea, Romania</i> ² <i>Center for Electronic Correlations and Magnetism, University of Augsburg, Germany</i>

CMP-P22	<p>MICROWAVE ABSORBENT PROPERTIES OF COMPOSITE MAGNETIC FLUIDS P. C. Fannin¹, I. Malaescu², C.N. Marin², N. Stefu², D. Malaescu² ¹ <i>Department of Electronic and Electrical Engineering, Trinity College, Dublin 2, Ireland</i> ² <i>West University of Timisoara, Faculty of Physics, Dept. of Electricity and Magnetism, Bd. V. Parvan #4, Timisoara, Romania</i></p>
CMP-P23	<p>SYNTHESIS AND CHARACTERIZATION OF CuFe₂O₄ NANOPARTICLES PREPARED BY THE HYDROTHERMAL ULTRASONICALLY ASSISTED METHOD P. Vlazan¹, S. Novaconi¹, A. Ercuta², C.N. Marin², I. Malaescu², A. Bucur¹, P. Sfirloaga¹, N. Stefu² ¹ <i>National Institute for Research and Development in Electrochemistry and Condensed Matter, Plautius Andronescu Str, 300224 Timisoara, Romania</i> ² <i>West University of Timisoara, Faculty of Physics, Dept. of Electricity and Magnetism, 4 Bd. V. Parvan, Timisoara, Romania</i></p>
CMP-P24	<p>SYNTHESIS OF NANO-STRUCTURED BI₂TE₃ AND ZN₄SB₃ SEMICONDUCTORS FOR THERMAL ENERGY RECOVERY S. Novaconi¹, I. Malaescu², P. Vlazan¹, P. Sfarloaga¹, A. Ercuta², I. Badea¹, N. Stefu², C. N. Marin² ¹ <i>National Institute for Research and Development in Electrochemistry and Condensed Matter Timisoara, Romania</i> ² <i>Department of Physics, West University of Timisoara, Timisoara, Romania</i></p>
CMP-P25	<p>INVESTIGATION OF A MAGNETIC FLUID EXHIBITING DOUBLE ABSORPTION PEAK IN THE MICROWAVE SUSCEPTIBILITY SPECTRUM P. C. Fannin¹, C. N. Marin², I. Mălăescu², A. Ercuța², P. Barvinschi², P. Sfirloagă³ ¹ <i>Department of Electronic and Electrical Engineering, Trinity College, University of Dublin, Dublin 2, Ireland</i> ² <i>West University of Timisoara, Faculty of Physics, Bd. V. Parvan, no. 4, 300223, Timisoara, Romania</i> ³ <i>National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Condensed Matter Department, Plautius Andronescu 1, Romania</i></p>
CMP-P26	<p>STRUCTURAL INVESTIGATION OF DINUCLEAR CLUSTERS INCORPORATED IN POLYOXOTUNGSTATES C. Nagy¹, D. Rusu², C. Somesan¹, S. Filip³, M. Rusu⁴, L. David¹ ¹ <i>"Babes-Bolyai" Univ., Faculty of Physics, Cluj-Napoca, , Romania</i> ² <i>"Iuliu Hatieganu" Univ. of Medicine and Pharmacy, Cluj-Napoca, Romania</i> ³ <i>Faculty of Science, Univ. of Oradea, Romania</i> ⁴ <i>"Babes-Bolyai" Univ., Faculty of Chemistry, Cluj-Napoca, Romania</i></p>
CMP-P27	<p>COMPARATIVE STUDY OF THE ENERGY LEVELS STRUCTURE FOR K₂SIF₆ AND NA₂SIF₆ DOPED WITH MN⁴⁺ R. Nistora¹, N.M. Avram^{1,2} ¹ <i>Department of Physics, West University of Timisoara, 300223-Timisoara, Romania.</i> ² <i>Academy of Romanian Scientists, Independentei 54, 050094-Bucharest, Romania.</i></p>
CMP-P28	<p>NOVEL METHOD FOR NANOCRYSTALLINE MATERIALS SYNTHESIS THROUGH AN ULTRAACOUSTIC ASSISTED HYDROTHERMAL METHOD COMBINED WITH MICROWAVE HEATING M. Nitu <i>National Research Institute for Condensed Matter and Electrochemistry Timisoara, Romania</i></p>
CMP-P29	<p>LOW TEMPERATURE SYNTHESIS OF (CUIN)_{0,1}ZN_{1,8}S₂ SOLID SOLUTION R. Banica, T. Nyari, A. I. Bucur, R. Baies <i>National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Romania</i></p>
CMP-P30	<p>STUDY OF SOLID SOLUTIONS FORMATION BETWEEN II-III2-VI4 (II=Zn, Cd; III=In; VI=S) TERNARY SEMICONDUCTORS USING THE HYDROTHERMAL TECHNIQUE T. Nyari¹, R. Banica¹, E. Indrea² ¹ <i>National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Romania</i> ² <i>National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania</i></p>

CMP-P31	<p>BROKEN SYMMETRY DFT CALCULATIONS OF EXCHANGE INTERACTIONS IN Mn-PORPHYRIN MOLECULAR MAGNETS</p> <p>C. I. Oprea¹, P. Panait¹, B. Frecuș¹, F. Cimpoesu², M. A. Gîrțu¹</p> <p>¹<i>Department of Physics, Ovidius University of Constanța, Constanța 900527, Romania</i></p> <p>²<i>Institute of Physical Chemistry, Splaiul Independenței 202, Bucharest 060021, Romania</i></p>
CMP-P32	<p>STANDARDIZATION OF NMR SPECTROMETER FOR IMPLEMENTING SNIF-NMR METHOD</p> <p>A. Pîrnău, M. Bogdan, C. G. Floare, D. A. Măgdaș</p> <p><i>National Institute for Research and Development of Isotopic and Molecular Technologies, Donath 65-103, RO- 400293, Cluj-Napoca, Romania</i></p>
CMP-P33	<p>STRUCTURAL CHARACTERIZATION OF SILICON-TITANATE MICROSPHERES WITH GALLIUM CONTENT</p> <p>O. Ponta, E. Vanea, A. Cheniti, B. Oprea, S. Simon</p> <p><i>Babes-Bolyai University, Faculty of Physics & Institute for Interdisciplinary Research in Bio-Nano-Science, Cluj-Napoca, M. Kogalniceanu 1, 400084, Romania</i></p>
CMP-P34	<p>REDUCING THE VOLTAGE SAGS USING SUPERCAPACITORS</p> <p>E. Raducan¹, L. Moraru¹, G. Gurguiatu²</p> <p>¹<i>Faculty of Sciences, Physics Department, „Dunărea de Jos” University of Galati, Romania</i></p> <p>²<i>Faculty of Automatic Control, Computers, Electrical and Electronics Engineering, Dept. Automation and Electrical Engineering, „Dunărea de Jos” University of Galati, Romania</i></p>
CMP-P35	<p>MAGNETIC RESONANCE INVESTIGATIONS OF $\text{Sn}_{1-x}\text{Fe}_x\text{O}_2$ NANOPOWDERS</p> <p>O. Raita, A. Popa, D. Toloman, Al. Darabont, M. Stan and L. M. Giurgiu</p> <p><i>National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca 400293, Romania</i></p>
CMP-P36	<p>XRD AND MAGNETISM OF SUPPORTED Ni CATALYSTS</p> <p>N. Aldea¹, V. Rednic¹, S. Pinteă¹, P. Marginean¹, L. Rednic¹, V. Pop², S. Macavei¹, E. Dorolti² and F. Matei³</p> <p>¹<i>National Institute for Research and Development of Isotopic and Molecular Technologies, Donath 65-193, 400293 Cluj-Napoca, Romania</i></p> <p>²<i>Babes-Bolyai University, Faculty of Physics, Kogalniceanu 1, 400084 Cluj-Napoca, Romania</i></p> <p>³<i>University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania</i></p>
CMP-P37	<p>THE INFLUENCE OF MAGNETRON SPUTTERING CONDITIONS ON THE PHYSICAL PROPERTIES OF (001) ORIENTED NANOSTRUCTURED ZnO THIN FILMS</p> <p>S. Simon¹, C. Besleaga¹, G.E. Stan², L. Ion¹, I. Arghir¹, S. Antohe¹</p> <p>¹<i>Faculty of Physics, University of Bucharest, 405 Atomistilor, Magurele, Romania</i></p> <p>²<i>National Institute of Materials Physics, 105-bis Atomistilor, 077125, Magurele, Romania</i></p>
CMP-P38	<p>THE INFLUENCE OF PBO AS SINTERING AID ON THE PROPERTIES OF NiZn AND LiZn FERRITES</p> <p>F. Tudorache¹, S. Tascu¹, F. Brinza¹, L. Mitoseriu¹, M. Grigoras² and P. D. Popa³</p> <p>¹<i>Alexandru Ioan Cuza University of Iasi, Faculty of Physics, Research Department of Physics, Bulevardul Carol I, Nr. 11, 700506 Iasi, Romania</i></p> <p>²<i>“Petru Poni” Institute of Macromolecular Chemistry, Aleea Grigore Ghica Voda, Nr. 41°, 700487, Iasi, Romania</i></p> <p>³<i>National Institute of Research and Technical Physics-IFT Iasi, Bulevardul D. Mangeron, Nr. 47, 700050, Iasi, Romania</i></p>
CMP-P39	<p>CALCULATION OF THE JUDD – OFELT PARAMETERS OF THE $\text{ZnAl}_2\text{O}_4: \text{Eu}^{3+}$</p> <p>M. L. Stanciu, S. Constantin</p> <p><i>Department of Physics, West University of Timisoara, 3200223 Timisoara, Romania</i></p> <p><i>Department of Physics, West University of Timisoara, 3200223 Timisoara, Rom</i></p>
CMP-P40	<p>SOME SPECTROSCOPIC PROPERTIES OF PbF_2 –DOPED CaF_2 CRYSTALS</p> <p>F. Stef¹, M. Stef^{1,2}, M. Paraschiva¹, E. Preda¹, N. Leuta¹ and I. Nicoara¹</p> <p>¹<i>West University of Timisoara, Dept. of Physics, Bd. V. Parvan no. 4, 300233 Timisoara, Romania</i></p> <p>²<i>Alexandru Ioan Cuza University of Iasi, Bd. Carol I no. 11, 700506 Iasi, Romania</i></p>

CMP-P41	<p>PARAMETRIC ANALYSIS OF THE RADIAL SEGREGATION IN DIRECTIONAL SOLIDIFICATION OF ALLOYS</p> <p>M. Robescu, R. Nistora, C. Stelian <i>Department of Physics, West University of Timisoara, Bd. V. Parvan, No. 4, 300223 Timisoara, Romania</i></p>
CMP-P42	<p>ABOUT THE DIFFUSION IN MAGNETIC STOCHASTIC TURBULENCE</p> <p>M. Negrea, V. N. Cancea, I. Tanase <i>Faculty of Physics, University of Craiova, 13 Al. I. Cuza Str., Craiova 200585, Romania</i></p>
CMP-P43	<p>SPECTROSCOPIC STUDIES OF SOME METAL COMPLEXES WITH DICLOFENAC AS LIGAND</p> <p>M. Udrescu¹, D. Rusu², C. Somesan¹, M. Toderas³, M. Rusu⁴, L. David¹ ¹ "Babes-Bolyai" Univ., Faculty of Physics, Cluj-Napoca, , Romania ² "Iuliu Hatieganu" Univ. of Medicine and Pharmacy, Cluj-Napoca, Romania ³ Faculty of Science, Univ. of Oradea, Romania ⁴ "Babes-Bolyai" Univ., Faculty of Chemistry, Cluj-Napoca, Romania</p>
CMP-P44	<p>A CRYSTAL FIELD ANALYSIS FOR Fe^{3+} IONS IN $LIGATIO_4$</p> <p>M. Vaida, C. N. Avram <i>Department of Physics, West University of Timisoara, Bd. V. Parvan 4, Timisoara 300223, Romania</i></p>
CMP-P45	<p>STRUCTURAL SURFACE CHANGES OF SILICATE BASED BIOGLASSES CONTAINING HIGH SILVER AMOUNT AS A RESULT OF IMMERSION IN SBF</p> <p>A. Vulpoi, E. Vanea, V. Simon <i>Babes-Bolyai University, Faculty of Physics & Institute for Interdisciplinary Research in Bio-Nano-Science, Cluj-Napoca, M. Kogalniceanu 1, 400084, Romania</i></p>
CMP-P46	<p>SYNCHRONOUS FLUORESCENCE SPECTROSCOPY COUPLED WITH CHEMOMETRICS FOR ANALYSIS AND CLASSIFICATION OF CEREAL FLOURS</p> <p>^{A.} Zeković, L. Lenhardt, T. Dramićanin, M. D. Dramićanin <i>Vinča Institute of Nuclear Sciences, University of Belgrade, PO Box 522, 11001 Belgrade, Serbia</i></p>
CMP-P47	<p>THE EFFECT OF THE RESIDUAL ION POTENTIAL ON THE FULLY DIFFERENTIAL CROSS SECTION OF HELIUM FOR IONIZATION BY ELECTRON IMPACT</p> <p>A. Tóth, L. Nagy <i>Faculty Of Physics, Babeş-Bolyai University, Str. Kogălniceanu Nr.1, 400084 Cluj, Romania</i></p>

POSTER PRESENTATIONS

Section Theoretical and Computational Physics (TCP)

TCP-P01	<p>THE DWELL TIME OF ELECTRON TUNNELING THROUGH A DOUBLE BARRIER IN THE PRESENCE OF RASHBA SOI</p> <p>D. M. Bălăţeanu <i>West University of Timișoara, Faculty of Physics, Bd. V. Pârvan, No.4, 300223, Timișoara, Romania</i></p>
TCP-P02	<p>GENERALIZED CALCULUS OF LAMB WAVES DISPERSION CURVES IN MULTI-LAYERED PLANAR STRUCTURES</p> <p>C. Hatiegan^{1,2}, R.-G. Gillich², I. C. Mituletu², L. Suci², V. I. Bizau², ¹ <i>Department of Physics, West University Timisoara, Blv. V. Parvan No. 4, Timisoara, Romania</i> ² <i>Engineering Faculty, "Eftimie Murgu" University, P-ta Traian Vuia No.1-4, Resita, Romania</i></p>
TCP-P03	<p>NEW SOLITARY WAVE SOLUTIONS FOR NONLINEAR CUBIC SCHRÖDINGER EQUATION</p> <p>V. Marinca, N. Herişanu <i>Politehnica University of Timișoara, Romania</i></p>
TCP-P04	<p>PERIODIC SOLUTIONS OF CANTILEVER BEAM USING A MODIFIED HOMOTOPY PERTURBATION METHOD</p> <p>V. Marinca, N. Herişanu <i>Politehnica University of Timișoara, Romania</i></p>
TCP-P05	<p>CHARGE EVALUATION FOR A BOSONIC SYSTEM IN A CURVED SPACE-TIME</p> <p>G. Murariu¹, L. Georgescu¹, Gh. Puscasu², C. Iticescu¹ ¹ <i>Physics, Chemistry and Environment Department, Faculty of Sciences, Dunarea de Jos University, Domenasca Street, no. 111, Galati, Romania</i> ² <i>Faculty of Automation, Computers, Electrical Engineering and Electronics</i></p>
TCP-P06	<p>THERMODYNAMICAL EQUILIBRIUM MODELLING OF A GASIFYING PROCESS</p> <p>G. Murariu¹, L. Georgescu¹, Gh. Puscasu², B. Codres², G. Rolea Georgiana³ ¹ <i>Physics, Chemistry and Environment Department, Faculty of Sciences, Dunarea de Jos University, , Domenasca Street, no. 111, Galati, Romania</i> ² <i>Faculty of Automation, Computers, Electrical Engineering and Electronics</i> ³ <i>Faculty of Mechanical Engineering</i></p>
TCP-P07	<p>ANALYTICAL APPROACH FOR PLANARY DYNAMICS IN ORTHOGONAL MAGNETO-ELECTROSTATIC FIELDS</p> <p>G. Murariu, L. Georgescu, M. Voiculescu ¹ <i>Physics, Chemistry and Environment Department, Faculty of Sciences, Dunarea de Jos University, , Domenasca Street, no. 111, Galati, Romania</i></p>
TCP-P08	<p>ABSORPTION OF SOUND WAVES</p> <p>V. Sajfert¹, S. Krstić², D. Popov³, N. Pop³ ¹ <i>University of Novi Sad, Technical Faculty "M. Pupin", Zrenjanin, Serbia</i> ² <i>Advanced School of Electrical Engineering, Belgrade, Serbia</i> ³ <i>Department of Physical Foundation of Engineering, University "Politehnica" of Timișoara, B-dul Vasile Parvan No. 2, 300223, Timișoara, Romania</i></p>
TCP-P09	<p>CONDUCTIVE AND SUPERCONDUCTIVE PROPERTIES OF NANORODS</p> <p>V. Sajfert¹, D. Popov², M. Đurić³, N. Pop², V. Chiritoiu² ¹ <i>University of Novi Sad, Technical Faculty "M. Pupin", Zrenjanin, Serbia</i> ² <i>Department of Physical Foundation of Engineering, University "Politehnica" of Timișoara, B-dul Vasile Parvan No. 2, 300223, Timișoara, Romania</i> ³ <i>Faculty of Technical Sciences, Novi Sad, Serbia</i></p>
TCP-P10	<p>LAGRANGIAN BRST COHOMOLOGY OF MASSLESS MIXED SYMMETRY TENSOR FIELDS. THE CASE (4,1)</p> <p>C. Bizdadea, S. O. Saliu, L. Stanciu-Oprean <i>Faculty of Physics, University of Craiova, 13 Al. I. Cuza Street, Craiova 200585, Romania</i></p>

TCP-P11	<p>AHARONOV-BOHM OSCILLATIONS IN CONCENTRIC QUANTUM RING SYSTEMS</p> <p>Zs. Szakacs, D. Racolta <i>Department of Physics, North University of Baia Mare, str. Victoriei, nr. 76, RO-431122, Baia Mare, Romania</i></p>
TCP-P12	<p>SYMMETRIES AND SIMILARITY SOLUTIONS FOR NONLINEAR WATER WAVE EQUATIONS</p> <p>R. Cimpoiasu, R. Constantinescu, C. Diaconescu <i>University of Craiova, 13 A.I.Cuza, 200585 Craiova, Romania</i></p>
TCP-P13	<p>A SECOND – ORDER APPROACH TO FIRST – ORDER SYSTEMS: QUADRATIC ACTIONS</p> <p>C. Bizdadea, M.M. Bârcan, I. Negru, S.O.Saliu <i>Faculty of Physics, University of Craiova, 13 A.I.Cuza Street, Craiova 200585, Romania</i></p>
TCP-P14	<p>EQUATIONS OF STATE FOR TWO PHASES LATTICE BOLTZMANN MODEL</p> <p>A. Cristea <i>Center for Fundamental and Advanced Technical Research, Romanian Academy – Timisoara Division, Bd. Mihai Viteazul 24, 300223, Timisoara, Romania</i></p>

POSTER PRESENTATIONS

Section Applied Physics and Interdisciplinarity (API)

API-P01	<p>MODELING OF TEST SYSTEM : PENDULUM-MRF DAMPER A. Boltosi, L. Bereteu, C. Oprețescu, A. Țirdea <i>“Politehnica” University of Timișoara, Bd. Mihai Viteazul, nr. 1, 300222 Timișoara</i> <i>ICECON București, Research Department Timișoara</i></p>
API-P02	<p>EXPERIMENTAL DEVICE FOR TESTING OF SEMI-ACTIVE MRF DAMPER A. Boltosi, L. Bereteu, A. Țirdea, C. Oprețescu <i>“Politehnica” University of Timișoara, Bd. Mihai Viteazul, nr. 1, 300222 Timișoara</i> <i>ICECON București, Research Department Timișoara</i></p>
API-P03	<p>STUDY OF FAR-FIELD DIRECTIVITY PATTERN FOR LINEAR ARRAYS A. M. Chiselev¹, L. Moraru¹, L. Onose^{1,2} ¹ <i>Faculty of Sciences, Dunarea de Jos University, Galati, Romania</i> ² <i>Mettalurgical High School, Galati</i></p>
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