



TIM 26 Physics Conference – Program

Thursday, 11 th of June 2026 Aula Magna of the West University of Timisoara	
13:00 – 14:00	Participants Registration Desk Open – in front of Aula Magna
14:00 – 14:20	Opening Ceremony

Plenary Session 1 <i>Chairman: Daniel Vizman/ Victor E. Ambrus</i>		
14:20 – 15:00	PL-01	ATMOSPHERIC PRESSURE PLASMAS: FUNDAMENTALS AND EMERGING APPLICATIONS <u>Ionut Topala</u> , Ilarion Mihaila, Ioana Cristina Gerber, Valentin Pohoata
15:00 – 15:40	PL-02	SAHARAN DUST AND PHOTOVOLTAIC ENERGY PRODUCTION IN EUROPE <u>György Varga</u>
15:40 – 16:10	Coffee Break – UVT Cafeteria 1 st floor	
16:10 – 16:50	PL-03	FROM JET QUENCHING TO QGP TOMOGRAPHY: INFERRING BULK PROPERTIES WITH HIGH-PT THEORY AND DATA <u>Magdalena Djordjevic</u>
16:50 – 17:30	PL-04	KONDO COMPENSATION AND QUANTUM CRITICALITY IN SUPERCONDUCTING AND FRACTIONALIZED SYSTEMS <u>Cătălin Pașcu Moca</u>

17:30 – 19:00	Poster Session – in front of Aula Magna TCP P01 – TCP P04 API P01 - API P18 CMP P01 – CMP P11
19:00	Welcome party – UVT Cafeteria 1 st floor

Friday, 12 th of June 2026 Room A11 - West University of Timisoara	
08:30 – 09:00	Participants Registration Desk Open – in front of A11



Plenary Session 2 <i>Chairman: Marius Stef</i>		
09:00 – 09:40	PL-05	PLASMONIC NANOPLATFORMS: FROM BIOSENSING TO CANCER THERANOSTICS <u>Monica Focsan</u>
09:40 – 10:20	PL-06	EXPERIMENTAL AND PHENOMENOLOGICAL INVESTIGATIONS OF FEMTOSCOPIC CORRELATIONS IN RELATIVISTIC NUCLEAR COLLISIONS <u>Daniel Kincses</u>
10:20 – 10:45	Coffee Break – F205 (2 nd Floor Department of Physics)	

	Room F206	Room A11 <i>Chairman: Marius Paulescu</i>
10:45 – 13:00	<i>Chairman: Dragoljub D. Dimitrijević</i> TCP Session 1 Oral presentations TCP-O01 – TCP-O08	API Session 1 Oral presentations API-O01 – API-O05 CMP Session 1 Oral presentations CMP-O01
13:00 – 14:30	Lunch Break – UVT Cafeteria 1 st floor	
14:30 – 16:30	<i>Chairman: Pracheta Singha</i> TCP Session 2 Oral presentations TCP-O09 – TCP-O16	
16:30 – 17:00	Coffee Break – F205 (2 nd Floor Department of Physics)	
17:00 – 18:00	<i>Chairman: Sergiu Busuioc</i> TCP Session 3 Oral presentations TCP-O17 – TCP-O20	

18:00 – 19:30	Cristian Presura - Public conference AULA MAGNA
19:30	Conference Dinner – Gatsby Events (Flora Restaurant, Str. Protopop George Dragomir, no. 9)



Saturday, 13th of June 2026 Room F205- West University of Timisoara	
10:00 – 12:00	EP Session Oral presentations and Poster session EP-O01 – EP-O02 EP-P01 – EP-P04
Participants Departure	



Oral Presentations

TCP – Theoretical and Computational Physics	
TCP-O01	INTERACTION VERTICES BETWEEN WEYL AND ELECTROMAGNETIC FIELDS: FOUR VERSUS SIX SPACETIME DIMENSIONS <u>Eugen-Mihaita Cioroianu</u> , Stefan-Sabin Manolescu
TCP-O02	ON THE FADDEEV-JACKIW-DIRAC APPROACH OF VARIOUS ABELIAN FORMS <u>Sabin-Stefan Manolescu</u> , Eugen-Mihaita Cioroianu
TCP-O03	VIELBEIN LATTICE BOLTZMANN FOR FLUID FLOWS ON SPHERICAL SURFACES Victor E. Ambruş, Elisa Bellantoni, <u>Sergiu Busuioc</u> , Alessandro Gabbana, Federico Toschi
TCP-O04	CAUSAL DIRAC FERMIONS IN FINITE ROTATING CYLINDERS <u>Matteo Buzzegoli</u> , Victor Ambruş
TCP-O05	LSSM STUDY OF MIXED-SYMMETRY STATES IN 50,52,54,56,58CR <u>Emanuela Boicu</u> , Nadia Tsoneva
TCP-O06	QUANTUM EFFECTS IN DENSE ATOMIC SYSTEMS VIA THERMAL RESERVOIR <u>Mihai A. Macovei</u>
TCP-O07	PRODUCTION RATE FOR POLARIZED DILEPTONS <u>Moulindu Kundu</u> , Aritra Bandyopadhyay, Victor E Ambruş
TCP-O08	EFFECTIVE QCD MODEL WITH CONSISTENT QUASI-GLUON TREATMENT <u>Pracheta Singha</u> , Chowdhury Aminul Islam, Rajarshi Ray, Munshi G. Mustafa
TCP-O09	DERIVATION OF THE CFL STABILITY CONDITION IN QUASI-3D GEOMETRY <u>Rares Iovănescu</u> , Cătălin M. Ticoş
TCP-O10	MOMENT OF INERTIA OF A SELF-INTERACTING SCALAR FIELD Aleksandar Gecic, <u>Victor E. Ambruş</u> , Kenji Fukushima
TCP-O11	SPATIAL PHOTON INTERFERENCE SCATTERED BY THREE ATOMS IN THERMAL FIELD <u>Arthur Rotari</u> , Mihai A. Macovei
TCP-O12	ABOUT TWO-FIELD COSMOLOGICAL PERTURBATIONS <u>Dragoljub D. Dimitrijević</u> , Goran Djordjević, Milan Milošević, Marko Stojanović
TCP-O13	DISSOCIATIVE RECOMBINATION AS AN EXOENERGETIC PATHWAY <u>Felix-Iosif Iacob</u>
TCP-O14	Z0 BOSON PRODUCTION AND UNDERLYING-EVENT OBSERVABLES IN PROTON-PROTON COLLISIONS AT $\sqrt{s} = 13$ TeV <u>Roxana Mocanu</u> , Alexandru Jipa, Florin Maciuc
TCP-O15	CHIRAL SYMMETRY BREAKING AND INHOMOGENEOUS PHASES IN THERMAL ANTI-DE SITTER SPACETIME <u>Sergio Morales Tejera</u>



TCP-O16	STRONGLY INTERACTING MATTER UNDER IMAGINARY ROTATION <u>Tudor Pătuleanu</u> , Victor Ambrus, Lehel Csillag
TCP-O17	GRAVITY MODEL WITH ADDITIONAL NONLOCAL TERM $(R - 4\Lambda)\mathcal{F}(\square)(R - 4\Lambda)$ <u>Jelena Stankovic</u>
TCP-O18	NUMERICAL STUDY INTO THE INFLUENCE OF VISCOSITY, SEED DIAMETER AND SEED ROTATION ON THE MELT CONVECTION FOR BORATE CRYSTALS GROWN IN A CZOCHRALSKI FURNACE <u>Dragos Tatomirescu</u> , Alexandra Popescu, Daniel Vizman
TCP-O19	ENVIRONMENTAL EFFECTS ON A DOUBLE QUANTUM DOT PLACED ON A MECHANICAL RESONATOR Arthur Rotari, Alexandr Cudreaşov, Irina Cebotari, <u>Victor Ceban</u>
TCP-O20	SPIN POLARIZATION DYNAMICS FOR LONGITUDINALLY EXPANDING FLUIDS Matteo Buzzegoli, Alexander Gecic, <u>Rajeev Singh</u>

CMP – Condensed Matter Physics	
CMP-O01	CRYSTAL GROWTH AND CHARACTERIZATION OF $\text{KTb}_3\text{F}_{10}$ SINGLE CRYSTAL <u>Maximilian Mangra</u> , Kesavan Venkatachalam, Grégory Gadret, Maria Poienar, Gabriel Buşe, Marius Ştef, Daniel Vizman, Carla Schornig, Daniel Rytz, Maximilian Şipoş, Philippe Veber

API – Applied Physics and Interdisciplinary	
API-O01	REFINEMENT OF LIQUIDUS BEHAVIOR IN AF2-RICH PART OF AF2–RF3 PHASE DIAGRAMS (A=Ca, Ba AND R=Tb, Tm) <u>Philippe Veber</u> , Gabriel Buse, Marius Ştef, Carla Schornig, Irinuca Bodea, Maria Poienar, Vincent Motto-Ros, Frederic Pelascini, Daniel Vizman
API-O02	AEROSOL-INDUCED IMPACTS ON THE PV POTENTIAL AND FINANCIAL BANKABILITY OF SOLAR PROJECTS <u>Robert Blaga</u> , Marius Paulescu
API-O03	A POSSIBLE MATHEMATICAL MODEL FOR PLANT MORPHOLOGY IN RELATION TO GRAVITATION AND LIGHT <u>Florin Secosan</u> , Mihail Lungu
API-O04	COMPARATIVE STUDY REGARDING EFFECTS OF COLD ATMOSPHERIC PLASMA ON TOMATO AND RED PEPPER SEEDS <u>Adriana-Florica Bogosel</u> , Mihail Lungu, Antoanetta Lungu
API-O05	VERIFICATION OF RADIOTHERAPY DOSE DELIVERY USING TLDS: IMPLEMENTATION OF THE IAEA PROTOCOL <u>Bianca-Emanuela Nicolescu</u> , Marius Spunei, C.N. Marin



EP – Educational Physics	
EP-O01	A CONNECTION-BASED TEAM TRIVIA FOR PHYSICS TEACHING <u>Sárközi Zsuzsa</u> , Vörös Alpár István Vita
EP-O02	LARGE-VOLUME AI-GENERATED PHYSICS EXERCISES BASED ON STUDENT ABILITY AND COGNITION PROFILING <u>Felicia Ivona Scarlat</u> , Alexandra Neagoe, Mihaela Carina Raportaru, Alexandru Nicolin- Żaczek



Poster Presentations

TCP – Theoretical and Computational Physics	
TCP-P01	DISSIPATIVE CAT-STATE STABILIZATION IN A KERR OSCILLATOR: PHASE DIAGRAMS AND DARK STATES Gabriel Pascu
TCP-P02	DENSITY FUNCTIONAL THEORY STUDY OF THE PHOTOCATALYTIC DEGRADATION OF PENICILLIN BY NANOCRYSTALLINE TiO₂ Corneliu I. Oprea, Robert M. Solomon, Mihai A. Gîrțu
TCP-P03	Optimization of thermal gradients and stress in KTb₃F₁₀ crystal growth using numerical modelling Turc Alex-Florin, Dragoș Tatomirescu, Daniel Vizman
TCP-P04	TWO DIPOLE-DIPOLE INTERACTING EMITTERS IN A MODERATELY STRONG LASER FIELD A. S. Cudreasov, M. A. Macovei

CMP – Condensed Matter Physics	
CMP-P01	DISLOCATIONS IN Tm AND Yb DOUBLE-DOPED CaF₂ CRYSTALS Francisc Bader, Carla Schornig, Gabriel Buse, Marius Ștef
CMP-P02	X-RAY RADIATION EFFECTS ON THULIUM-DOPED CaF₂ AND BaF₂ SINGLE CRYSTALS Gabriel Bușe, Maria Poienar, Marius Ștef, Carla Zeicu, Philippe Veber, Mathieu Duttine, Daniel Vizman
CMP-P03	GREEN SYNTHESIS OF GRAPHENE QDS FOR LATERAL FLOW ASSAY C. Mihailescu, I. Mihalache, O. Brincoveanu, V. Tucureanu, A. T. Stolica
CMP-P04	SIMULTANEOUS RECOVERY OF NUTRIENTS AND HYDROGEN VIA ELECTROCONCENTRATION Anil Dhanda, Lakshmi Pathi Thulluru, Shamik Chowdhury, Makarand M. Ghangrekar, Corina Macarie, Ionel Balcu, Doru Buzatu, Narcis Duteanu, Paula Sfirloaga
CMP-P05	JUDD-OFELT ANALYSIS OF Tb³⁺ IONS DOPED IN CaF₂ CRYSTALS Marius Ștef, Irinuca Bodea, Carla Schornig, Gabriel Buse, Philippe Veber, Maria Poienar, Daniel Vizman
CMP-P06	EFFECT OF RAPID THERMAL PROCESSING ON SURFACE WETTABILITY OF VERTICAL GRAPHENE NANOSHEETS Alina Matei, Octavian-Gabriel Simionescu, Cristina Pachiu, Oana Brincoveanu, Vasilica Tucureanu
CMP-P07	STRUCTURAL PROPERTIES OF RARE EARTH (Tm/Yb) CO-DOPED CaF₂ AND BaF₂ FLUORIDE SINGLE CRYSTALS Marian Petrică Bertici, Maria Poienar, Gabriel Bușe, Marius Ștef, Carla Zeicu, Philippe Veber, Daniel Vizman



CMP-P08	DOWNSHIFTING AND UP-CONVERSION LUMINESCENCE IN RE-DOPED TELLURITE OXYCHLORIDE GLASSES Petr Kostka, Roman Yatskiv, Petr Vařák, David Le Coq, Lousiane Verger, Ondrej Bošák, Olga Procházková, Jiří Zavadil
CMP-P09	THERMALLY-ACTIVATED RECONVERSION IN RARE EARTH-DOPED FLUORIDE SINGLE CRYSTALS Maria Poienar, Gabriel Bușe, Marius Stef, Carla Zeicu, Philippe Veber, Daniel Vizman
CMP-P10	EMISSION BEHAVIOR OF TmF₃ - DOPED CaF₂ CRYSTALS Carla Schornig, Marius Stef, Gabriel Buse, Philippe Veber, Maria Poienar, Daniel Vizman
CMP-P11	ENHANCING THE PROPERTIES OF YTTRIUM-BASED PHOSPHORS NANOPARTICLES BY SURFACE SILANIZATION Vasilica Țucureanu, Oana Brîncoveanu, Cosmin Romanițan, Adina Boldeiu, Iuliana Mihalache, Alina Matei

API – Applied Physics and Interdisciplinary	
API-P01	ESTIMATION OF DIRECT NORMAL IRRADIANCE FROM ATMOSPHERIC PARAMETERS Anamaria-Giulia Goilean, Marius Paulescu
API-P02	SOFTWARE PLATFORM FOR GANGLIOSIDE IMS-MS DATA ANALYSIS Roxana Biricioiu, Raluca Ica, Mirela Sârbu, Sorin Nădăban, Alina Zamfir
API-P03	MEMBRANES MADE OF HONEY, GELATIN, SILVER MICROPARTICLES AND INJECTABLE WATER: THE INFLUENCE OF SILVER MICROPARTICLES ON ELECTRICAL AND ELASTIC PROPERTIES POTENTIALLY USABLE IN DENTISTRY Andrei Mihai Gavrilovici, Mircea Eugen Anitas, Ioan Bica ² , Mădălin Bunoiu, Gabriel Pascu, Liviu Chirigiu
API-P04	MULTI-ANALYTICAL INVESTIGATION OF SUSPECTED METEORITIC ROCK SAMPLES FROM LUDEȘTI AREA, DAMBOVITA COUNTY, ROMANIA Anca-Irina Gheboianu, Cristina-Mihaela Nicolescu, Marius Bumbac, Dragoș-Viorel Brezoi, Aurora-Anca Poinescu, Simona Mihai, Florin-Matei Constantin
API-P05	DEVELOPING FUNCTIONALIZED POLYETHYLENE-BASED MATERIALS BY LEVERAGING RESIDUAL PLANT BIOMASS HYDROLYSIS TO INTRODUCE NEW FUNCTIONALITIES Marius Bumbac, Cristina Mihaela Nicolescu, Anca Irina Gheboianu, Ion Valentin Gurgu, Cosmin Stefan Gherghinoiu, Germano Craia, Bogdan-Catalin Serban, Octavian Buiu
API-P06	EFFICIENT PHOTODETECTOR BASED ON ITO/SIC SCHOTTKY JUNCTION I. Mihalache, R. Pascu, G. Pristavu, C. Romanitan
API-P07	RECOVERY OF ANALOG SEISMIC SIGNALS: A COMPARATIVE ANALYSIS OF <i>mb</i> ESTIMATES FROM A NUCLEAR TEST Rău Adina, Lungu Mihail, Popa Mihaela, Radulian Mircea
API-P08	AN INTEGRAL MODEL FOR ERYTHEMAL UV DOSE ON TILTED SURFACES Andrea-Florina Codrean, Madalin Octavian Bunoiu, Marius Paulescu



API-P09	ELECTRICAL AND DIELECTRIC PROPERTIES OF ZnO-BaO-V2O5 GLASSES Ondrej Bošák, Marian Kubliha, Tina Tasheva, Stanislav Minárik, Petr Kostka
API-P10	MODELING CLEAR-SKY SOLAR UV IRRADIANCE: A PARAMETRIC APPROACH George Stirban, Eugenia Paulescu
API-P11	VALIDATION OF SATELLITE-DERIVED SOLAR IRRADIANCE AND SUNSHINE DURATION AGAINST GROUND MEASUREMENTS IN TIMIȘOARA, ROMANIA Jordan Ciucea, Sergiu-Mihai Hategan, Andreea Sabadus, Marius Paulescu
API-P12	DYNAMIC MECHANICAL ANALYSIS OF PULSED LASER BUTT-WELDED WIRES Dragos Valsan, Corneliu Craciunescu, Aurel Ercuta, Mădălin Bunoiu, Gabriel Pascu, Cristian-Radu Ivan
API-P13	SURFACE TOPOGRAPHY AND COMPOSITIONAL EFFECTS IN ND:YAG SPOTS OF SEVERAL SHAPE MEMORY ALLOYS Dragos Valsan, Corneliu Craciunescu, Aurel Ercuta, Mădălin Bunoiu, Gabriel Pascu, Cristian-Radu Ivan
API-P14	ELECTRICAL PROPERTIES OF (Na₂S)_{0.75}((In₂S₃)_{0.6}(Sb₂S₃)_{0.6})_{0.25} Ondrej Bošák, Marian Kubliha, Vladimír Labaš, Zoé Barbotin, David Le Coq, Louisiane Verger
API-P15	ACE DATA AND THE SOLAR DATA ANALYSIS BY THE QUANTUM SPECTRAL MODEL Diana-R. Radnef-Constantin, Liliana Preda, Mark Rushton, Agnetha Mocanu, Dumitru Popescu, Valentin I. Niculescu
API-P16	NUMERICAL AND ANALYTICAL RESULTS FOR THE PULSATORY LIPOSOME Diana-R. Radnef-Constantin, Dumitru Popescu, Agnetha A. Mocanu, Valentin I. Niculescu
API-P17	INTERMOLECULAR INTERACTIONS IN BINARY AND TERNARY SOLUTIONS OF ERYTHROSIN B (FOOD ADDITIVE E127) Patricia-Liliana Vieru, Georgiana-Maria Stanciu, Dan-Gheorghe Dimitriu
API-P18	QUANTUM-MECHANICAL MODELING AND SOLVATOCHROMIC STUDY OF CITRIC ACID (FOOD ADDITIVE E330) Georgiana-Maria Stanciu, Patricia-Liliana Vieru, Dan-Gheorghe Dimitriu



EP – Educational Physics	
EP-P01	AUGMENTED REALITY AND INTERACTIVE SIMULATIONS IN PHYSICS EDUCATION Antoanetta Lungu, Mihail Lungu, Adriana-Florica Bogoşel
EP-P02	LEARNING PHYSICS THROUGH STEAM EDUCATION IN PRESCHOOL YEARS Camelia Delia Voicu, Anca Irina Gheboianu, Cristina Mihaela Nicolescu
EP-P03	INNOVATIVE STEM EDUCATION: A CATALYST FOR YOUTH ENGAGEMENT IN STEM AND SUSTAINABLE DEVELOPMENT Cristina Mihaela Nicolescu, Marius Bumbac, Anca Irina Gheboianu, Ion Valentin Gurgu, Simona Mihai, Isabela Elena Cetăţoiu, Liviu Olteanu, Bogdan-Catalin Serban, Octavian Buiu, Anca Baci, Zoltan Borsos, Georgeta Nan
EP-P04	PERSONALIZED AI-GENERATED PHYSICS EXERCISES BASED ON STUDENT ABILITY AND COGNITION PROFILING Alexandra Neagoe, Felicia Ivona Scarlat, Mihaela Carina Raportaru, Alexandru Nicolin-Źaczek

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