



**TIM 22**  
PHYSICS CONFERENCE

## **FINAL PROGRAM**

**Applied Physics and Interdisciplinarity (API)**

Thursday, 24th of November 2022

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| Thursday, 24th of November 2022                   |
| F206  |
| API Session 1<br><i>Chairman:</i> Iulian Petrisor |

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| 11:00-11:30 | API-I01 | ON THE DESTRUCTION RATES OF HYDROCARBON DUST IN INTERSTELLAR MEDIUM<br><b>Ionut Topala</b> , Andrei Sandu, Ioana Cristina Gerber, Mihai Straticiu, Decebal Iancu, Radu Andrei, Ilarion Mihaila, Valentin Pohoata |
| 11:30-11:50 | API-O01 | ESTIMATION OF PM10 POLLUTION LEVEL FOR 2021 IN FIVE MAJOR ROMANIAN CITIES USING INDEPENDENT AIR QUALITY MONITORING NETWORK DATA<br>L. Velea, <b>M.T. Udristioiu</b> , S. Puiu, R. Motisan                        |
| 11:50-12:10 | API-O02 | HYPERTHERMIA WITH NANOPARTICLES IN THE FORM OF FERRITES<br><b>Ardeleanu Helmina</b> , Iordana Astefanoaiei, Dorina-Emilia Creanga  |
| 12:10-12:30 | API-O03 | THE OUTCOME OF BREAST CANCER RADIOTHERAPY AS A FUNCTION OF SETUP ERRORS<br><b>Ioana-Claudia Costin</b> , Loredana G. Marcu   |
| 12:30-12:50 | API-O04 | ION METROLOGY DEVELOPMENTS FOR EXTREME LIGHT INFRASTRUCTURE<br><b>Michael Ehret</b> , G. Gatti, L. Volpe, D. Ursescu   |

Friday, 25th of November 2022

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| Friday, 25th of November 2022                  |
| F206   |
| API Session 2<br><i>Chairman:</i> Ionut Topala |

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| 10:00-10:30 | API-I02 | USING ADVANCED TECHNOLOGIES TO PROCESS DATA GIVEN BY A PM SENSOR<br><b>M.T. Udristioiu</b> , A. Dudáš, A. Michalíková, J. Škrinárová, J. Raganová, M. Hruška, M. Spodniaková Pfefferová, J. Raykova, H. Yldizhan, I. Petrisor, I. Buligiu, D. Stoyanova, E. Yilmaz |
| 10:30-10:50 | API-O05 | HIGH VACUUM VAPOR-PHASE PROTON EXCHANGE LINBO3 OPTICAL WAVEGUIDES WITH HIGH-INDEX CONTRAST<br><b>Mihnea-Raoul Sandu</b> , L. Hrostea, A. P. Rambu, F. Doutre, V. Tiron, S. Tascu   |
| 10:50-11:10 | API-O06 | HIGH CONTROL AND REPRODUCIBILITY OF INDEX CONTRAST OF LITHIUM NIOBATE WAVEGUIDES FABRICATED BY HIGH VACUUM PROTON EXCHANGE<br><b>Laura Hrostea</b> , M. R. Sandu, A. P. Rambu, S. Tascu  |
| 11:10-11:30 | API-O07 | PM MODELLING THROUGH LAND-USE REGRESSION IN TIMIȘOARA, ROMANIA<br><b>Robert Blaga</b>  |

**Thursday, 24th of November 2022**

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|             | <b>Aula Magna of the West University of Timisoara</b>  |
|             | <b>Faculty of Physics - 60 years Anniversary Ceremony (part I)</b>   |
| 13:30-14:00 | <b>Reception of the participants</b>   |
| 14:00-16:00 | <b>Opening of the event,<br/>The speech of the Dean,<br/>Presentation of the history of the Faculty, Guest speeches.</b> |
| 16:00-16:30 | <b>Coffee Break</b>  |
| 16:30-18:00 | <b>Faculty of Physics - 60 years Anniversary Ceremony (part II)</b>  |
| 14:00-16:00 | <b>DHC messages, Alumni, Tribute to senior teachers</b>  |

**Thursday, 24th of November 2022**

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| 19:00-23:00 | <b>Conference Banquet</b><br><i>Beer Factory Restaurant</i> |
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Wednesday, 23rd of November 2022

| Wednesday, 23rd of November 2022 |   |
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| 18:00-19:00                      | <b>Posters Session 1 (TCP + 1/2API)</b><br>Faculty of Physics 2nd Floor   |
| API-P1                           | ELECTRICAL AND DIELECTRIC PROPERTIES OF ZINC LEAD TELLURITE GLASSES WITH LEAD IN VARIOUS FORM<br><b>Ondrej Bošák</b> , Petr Kostka, Marian Kubliha, Svetlana Lukic-Petrovic, Goran Štrbac, David Le Coq, Stanislav Minarik      |
| API-P2                           | PREPARATION AND LUMINESCENCE PROPERTIES OF PR-DOPED HEAVY METAL OXIDE GLASSES BY ION IMPLANTATION<br><b>Marian Kubliha</b> , Petr Kostka, Roman Yatskiv, Laurent Calvez, David Le Coq, Pavol Noga, Vladimir Labaš, Ondrej Bošák |
| API-P3                           | THE PRESENCE OF HEAVY METALS IN DENTAL CARIES, PERMANENT TEETH, COMING FROM A POLLUTED WORK ENVIRONMENT<br>Marius Belc, Semaghiul Birghila, Nicoleta Matei, Mihaela Maris   |
| API-P4                           | ANALYSIS AND CALIBRATION OF GFS SOLAR IRRADIATION FORECASTS FOR TIMISOARA<br><b>Sergiu-Mihai Hategan</b> and Marius Paulescu  |
| API-P5                           | STRUCTURAL AND MORPHOLOGICAL INVESTIGATIONS OF MOSAICS FROM BANLOC CASTLE (ROMANIA)<br>Alina MOȘIU, Lorena IANCU, Ramona Marina GRIGORESCU, Anca Irina GHEBOIANU, Sofia   |

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|        | SLAMNOIU-TEODORESCU, Rodica-P1Mariana ION, Marius MOȘOARCĂ   |
| API-P6 | IDENTIFICATION OF ANTROPHIC ACTIVITY INTERFERENCE IN THE SEISMIC CATALOGUE FOR BANAT REGION<br>Adina Vanciu Rau, Raluca Dinescu, Mircea Radulian, Mihail Lungu |
| API-P7 | NANOPARTICLES SIZE DISTRIBUTION ASSESSMENT BY DIRECT OPTICAL PARTICLE TRACKING<br>Chicea Dan, Maranciu Alexandra, Olaru Sorin                                  |

**Thursday, 24th of November 2022**

| Thursday, 24th of November 2022 |   |
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| 17:30-18:30                     | <b>Posters Session 2 (MCP + 2/2API)</b><br>Faculty of Physics 2nd Floor |

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| API-P8  | PROFILING PARTICLES OF SAHARA DUST SETTLED IN ROMANIA BY A SIMPLIFIED DYNAMIC LIGHT SCATTERING PROCEDURE AND CENTRIFUGATION<br>Chicea Dan and Olaru Sorin  |
| API-P9  | STRUCTURAL INVESTIGATION OF $X(\text{V}_2\text{O}_5) \cdot (100-X)[\text{P}_2\text{O}_5 \cdot \text{Li}_2\text{O}]$ AND $X\text{V}_2\text{O}_5 \cdot (100-X)[\text{P}_2\text{O}_5 \cdot \text{CAO}]$ GLASS SYSTEMS BY RAMAN SPECTROSCOPY<br><b>D. Racolta</b> , M. Balasoiu, C. Andronache, L. Mihaly-Cozmuta, A.V. Rogachev, O.L. Orelovich, V.V. Sikolenko |
| API-P10 | EYEBALLS SCATTERED IRRADIATION DOSES INDUCED IN A X-RAYS TREATMENT<br><b>Nicola Cristina Madalina</b>  |
| API-P11 | THE IMPACT OF ACCURATE PARAMETERS ESTIMATION OF A SOLAR CELL ON PV MODULE PERFORMANCE ASSESSMENT   |

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|         | <b>Andreea Sabadus</b> and Marius Paulescu  |
| API-P12 | STRUCTURE ORGANIZATION OF SILICONE-RUBBER BASED MAGNETIC AND<br>MAGNETORHEOLOGICAL ELASTOMERS REVEALED BY MEANS SANS AND NEUTRON<br>DEPOLARIZATION METHODS<br>M. Balasoiu, O. M. Bunoiu, V.T. Lebedev, S.V. Kozhevnikov, L. Almasy, Yu.V. Nikitenko, A.I. Kuklin, I. Bica |
| API-P13 | STUDY OF ELECTRICAL PROPERTIES OF SOME ORGANIC TERNARY BLENDS THIN FILMS FOR<br>PHOTOVOLTAIC APPLICATIONS<br><b>Laura Hrostea</b> and Liviu Leontie   |
| API-P14 | A NUMERICAL ANALYSIS OF PARTICLE HANDLING BY STANDING ACOUSTIC AND<br>DIELECTROPHORETIC FIELDS<br><b>G.D. Lascu</b> , D.M. Bălăţeanu, M. Lungu and A. Neculae   |
| API-P15 | STATISTICS OF MUSICAL NOTES<br>I.S STANCIU, A. STANCEA, A.I. NICOLIN  |
| API-P16 | FORECASTING THE SUNSPOT NUMBER BY USING ARTIFICIAL INTELLIGENCE TECHNIQUES<br><b>Remus Boata</b>  |
| API-P17 | A HYBRID METHOD FOR MODELING SOLAR IRRADIATION IN TIMISOARA<br><b>Remus Boata</b>   |
| API-P18 | MAGNETICALLY ACTIVE COMPOSITES WITH RELATIVELY GIANT DIELECTRIC PERMITTIVITY<br>Madalin Bunoiu, Maria Balasoiu, <b>Gabriel Pascu</b> , Liviu Chirigiu, Gabriela Iacobescu and Ioan Bica   |

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