Southeastern European Network in Mathematical and Theoretical Physics SEENET-MTP

A Network for the Balkans

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Southeastern European Network
SEENET-MTP
www.seenet-mtp.info
in Mathematical and Theoretical Physics

SEENET-MTP – a regional story

- Recognizing the importance of bridging the gap between Southeastern and Western European scientific community the participants of the UNESCO-ROSTE - sponsored BALKAN WORKSHOP BW2003 "*Mathematical, Theoretical and Phenomenological Challenges Beyond the Standard Model: Perspectives of Balkans Collaboration*" (Vrnjacka Banja, Serbia, August 29 - September 3, 2003) came to a common agreement on the Initiative for the SEENET-MTP NETWORK
- Structure Development 2004 - 2015
  - 21 institutions from 11 countries in the region joined the Network
  - 14 partner institutions all over the world
  - about 360 individual members

The Main Objectives and Aims

- Provide the regional framework for the institutional capacity-building in Mathematical and Theoretical Physics
- Strengthening of close relations and co-operation among faculties of science, research institutions and individual scientists in South-East Europe
- Joint scientific and research activities in the region and fostering interregional collaboration, first of all European context, but also with a strong worldwide dimension
- Support capacity building in science and technology for development by initiating intensive, new approaches to teaching physics and sciences
- Promote exchange of students and encourage communication between gifted pupils
- Support establishment of local and regional centers of excellence in physics and mathematics.

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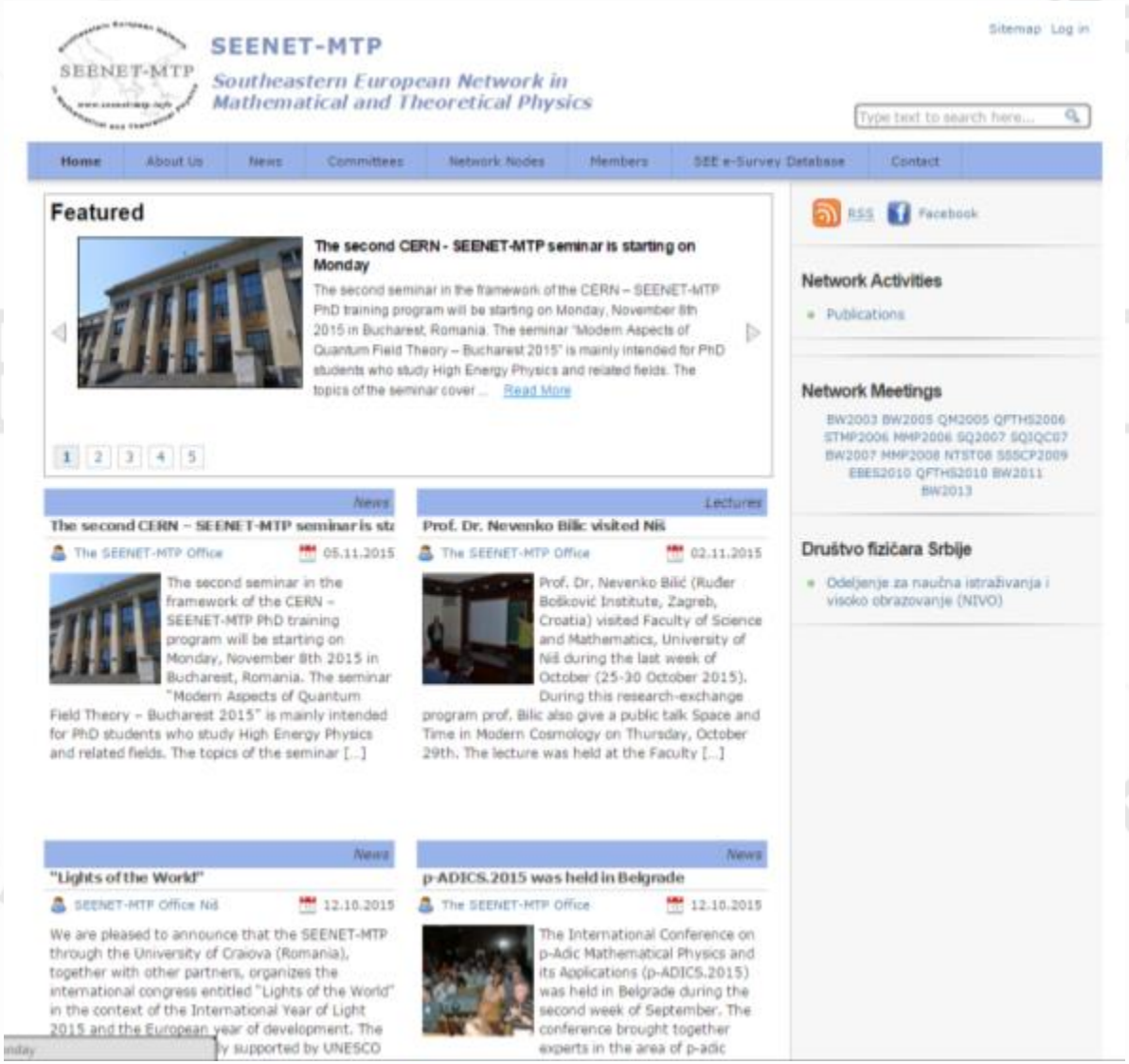

The SEENET-MTP Projects

- CEI Project “Towards the integration of the physics community in CEI countries into the ERA”, 1202.127-14 (2014-2015) and UNESCO, ICTP, EPS, SEENET-MTP
- UNESCO Project “SEEPEP-South Eastern European Physics and Education Program”, CFS 14-20 N.: 4500239205 (2014)
- CEI Project “Beyond the Standard Models 2013”, 1202.081-13 (2013) and EPS
- UNESCO Project CFS 13-10 N4500194266 (2013)
- ICTP Project “Cosmology and Strings”, PRJ-09 (2009-2015)
- DAAD and French Institute “Beyond the Standard Models 2011” (2011)
- ICTP Project “Beyond the Standard Models 2011”
- UNESCO Project “Mathematical and Theoretical Physics SEE”, AFC 11-18 n.: 4500143843 (2011)
- The Bavarian State Ministry of Sciences and the Arts and Ludwig-Maximilian University, Munich, Mobility program "String Theory and Theoretical Physics” (2009-2010)
- ICTP Project "Cosmology and Strings", PRJ-09 (2009 - 2010)
- UNESCO Project - (Southeastern European Network in Mathematical and Theoretical Physics), Research-Training SEENET-MTP Network \br. 875.922.8 (2008-2009)
- UNESCO Project (SEENET-MTP)
  \br. 875.854.7 (2007-2008), \br. 875.834.6 (2006-2007),
  \br. 875.914.5 (2005-2006), \br. 875.728.3 (2003)

Ongoing Projects

- UNESCO project - “Lights of World - Basic and Engineering Sciences in South Eastern Europe” (2015-2016) (University of Craiova)
- “ICTP SEENET-MTP Project - Cosmology and Strings” (2015-)
- “CERN – SEENET-MTP PhD Training Program in HEP`` (2015-)

Open the interactive map at http://www.seenet-mtp.info/map-seenet-mtp

The Full Member Nodes (15)

- Mathematical Institute SANU
  Belgrade, Serbia
- Astronomical Observatory
  Belgrade, Serbia
- Institute of Physics
  Belgrade, Serbia
- Faculty of Physics, University of Belgrade
  Belgrade, Serbia
- National Institute for Physics and Nuclear Engineering
  Bucharest, Romania
- Institute for Applied Physics
  Chisinau, Moldova
- Faculty of Physics, University of Babes-Bolyai
  Cluj- Napoca, Romania
- Faculty of Mathematics and Natural Sciences, University of Craiova
  Craiova, Romania
- Physics Department,
  Mimar Sinan Fine Arts University
  Istanbul, Turkey
- Faculty of Sciences and Mathematics, University of Kragujevac
  Kragujevac, Serbia
- Bogolyubov Institute for Theoretical Physics
  National Academy of Science of Ukraine
  Kyiv, Ukraine
- Faculty of Sciences and Mathematics, University of Niš
  Niš, Serbia
- Section of Nuclear and Particle Physics, Aristotle University of Thessaloniki
  Thessaloniki, Greece
- Faculty of Physics, West University of Timisoara
  Timisoara, Romania
- Faculty of Sciences, University of Zagreb
  Zagreb, Croatia

The Other Network Nodes (6)

- Cankaya University
  Ankara, Turkey
- Bogazici University
  Istanbul, Turkey
- Faculty of Science, University of Sarajevo
  Sarajevo, Bosnia and Herzegovina
- Faculty of Science and Mathematics,
  University of Skopje
  Skopje, Macedonia
- The Institute for Nuclear Research and Nuclear Energy
  Sofia, Bulgaria
- Department of Physics, University of Vlora
  Vlora, Albania

The Partner Institutions (14)

- Department of Physics & Astronomy, The Johns Hopkins University
  Baltimor, USA
- Department of Physics, Faculty of Science and Mathematics
  Banja Luka, Bosnia and Herzegovina
- Department of Physics, Buffalo University
  Buffalo, USA
- Theoretical Physics, CERN
  Geneva, Switzerland
- Mathematics Department, Lusofona University
  Lisbon, Portugal
- Department of Theoretical Physics , Jozef Stefan Institute
  Ljubljana, Slovenia
- Lab 170, ITEP
  Moscow, Russia

The Partner Institutions (14)

- String Theory Group, LMU and MPI
  Munich, Germany
- Algebraic Structures in Field Theory Group, CBPF
  Rio de Janeiro, Brasil
- Theoretical Physics Department , Faculty of Physics, Sofia University
  Sofia, Bulgaria
- The High Energy, Cosmology & Astroparticle Physics Section, ICTP
  Trieste, Italy
- International School for Advanced Studies (SISSA)
  Trieste, Italy
- Particle Physics Group, Inst. for Theoretical Physics, Vienna University of Technology
  Vienna, Austria
- Department of Statistics, Faculty of Science, University of Warwick
  Warwick, UK

Scientific Advisory Committee

- The Scientific Advisory Committee (SAC) includes a number of outstanding and leading international researchers from both the Southeastern European region (SEE) and other regions of the world.
- The main responsibilities of the SAC are the following: consideration of research project proposals submitted by the nodes, recommendations for promising research topics of high international interest, support of the Network activities and participation in its events, and support of the bilateral and multilateral co-operation between the SAC members' home institutions and the SEENET-MTP.

- **Coordinators:**
  - Prof. Julius WESS (2003 – 2007)
  - Prof. Goran SENJANOVIC (2008 – 2013)
  - Prof. Ignatios ANTONIADIS (2014 –)

Scientific Advisory Committee

- **Luis ALVAREZ-GAUME**
  CERN (Geneva, Switzerland)
- **Ignatios ANTONIADIS**, Coordinator
  Institute for Theoretical Physics (Bern, Switzerland)
- **Metin ARIK**
  Bogazici University (Istanbul, Turkey)
- **Jonathan BAGGER**
  The Johns Hopkins University (Baltimor, USA)
- **Loriano BONORA**
  International School for Advanced Studies – SISSA (Trieste, Italy)
- **Lars BRINK**
  Chalmers University of Technology (Göteborg, Sweden)
- **Emilian DUDAS**
  CPHT, Ecole Polytechnique (Palaiseau, France)
- **Georgi DVALI**
  String Theory Group, LMU and MPI (Munich, Germany)
- **Nemanja KALOPER**
  University of California (Davis, USA)

Scientific Advisory Committee

- **George LAZARIDES**
  Aristotle University of Thessaloniki (Thessaloniki, Greece)
- **Jan LOUIS**
  II. Institut für Theoretische Physik, University of Hamburg (Hamburg, Germany)
- **Dieter LUEST**
  String Theory Group, LMU and MPI (Munich, Germany)
- **Alexei MOROZOV**
  Institute of Theoretical and Experimental Physics (Moscow, Russia)
- **Sunil MUKHI**
  Department of Theoretical Physics, Tata Institute of Fundamental Research (Mumbai, India)
- **Kumar NARAIN**
  The High Energy, Cosmology & Astroparticle Physics Section, ICTP (Trieste, Italy)
- **Goran SENJANOVIC**
  The High Energy, Cosmology & Astroparticle Physics Section, ICTP (Trieste, Italy)
- **Ivan TODOROV**
  The Institute for Nuclear Research and Nuclear Energy (Sofia, Bulgaria)
- **George ZOUPANOS**
  National Technical University of Athens (Zografou, Greece)

They were with us

- **Wolfgang Kummer** (1935 – 2007)
  Institute for Theoretical Physics
  University of Technology
  Wien, Austria

- **Zvonko Maric** (1930 - 2007)
  Faculty of Physics, University of Belgrade
  Serbian Academy of Arts and Sciences
  Belgrade, Serbia

- **Guido Altarelli** (1941 - 2015)
  CERN
  Geneva, Switzerland

They were with us

- **Julius Wess** (1934 – 2007)
  Max-Plank-Institut fuer Physik
  Muenchen, Germany
- Founder of the WIGV initiative Wissenschaftler In Globaler Verantwortung
- One of the founders of the SEENET-MTP
- Coordinator of SAC (2003 - 2007)
- Director of the Max-Plank-Institut fuer Physik

The Executive Committee

- The primary objectives of the Executive Committee (EC) are the elaboration of the Network Program, its implementation, and the expansion of the Network's financial base. The full member nodes from each country are represented by one member in the EC. Depending on the budget, the EC will hold regular annual meetings.
- The president of the EC is the Executive Director of the SEENET-MTP and its Office.
- **Executive Director:**
  - Prof. Goran DJORDJEVIC (2009 –)

The Executive Committee full member nodes

- **Viorel CIORNEA**
  Institute for Applied Physics (Chisinau, Moldova)
- **Goran DJORDJEVIC**, Executive director
  Faculty of Sciences and Mathematics, University of Niš (Niš, Serbia)
- **Marijan MILEKOVIC**
  Faculty of Sciences, University of Zagreb (Zagreb, Croatia)
- **Argyris NIKOLAIDIS**
  Aristotle University of Thessaloniki (Thessaloniki, Greece)
- **Yurii SITENKO**
  Bogolyubov Institute for Theoretical Physics, National Academy of Science (Kyiv, Ukraine)
- **Kayhan ULKER**
  Physics Department, Mimar Sinan Fine Arts University (Istanbul, Turkey)
- **Mihai VISINESCU**
  National Institute for Physics and Nuclear Engineering (Bucharest, Romania)

Representative Committee full member nodes

- The Network Nodes are represented in the Representative Committee (RC) by one person. Members of the RC are included in the preparation and implementation of the Network activities. Depending on the budget, the RC will hold regular biannual meetings.
- The president of the RC is also the President of the SEENET-MTP Network. In the period between 2003 and 2009 the executive role in the Network was performed by the coordinator.

- **Presidents:**
  - Prof. Radu CONSTANTINESCU (2009 – 2013)
  - Prof. Dumitru VULCANOV (2013 –)
- **Vicepresident**
  - Boyka Aneva (2013-2015)
- **Coordinator:**
  - Prof. Goran DJORDJEVIC (2003 – 2009)

Representative Committee

- **Viorel CIORNEA**
  Institute for Applied Physics (Chisinau, Moldova)
- **Radu CONSTANTINESCU**
  Faculty of Mathematics and Natural Sciences, University of Craiova (Craiova, Romania)
- **Marija DIMITRIJEVIC CIRIC**
  Faculty of Physics, University of Belgrade (Belgrade, Serbia)
- **Goran DJORDJEVIC**
  Faculty of Sciences and Mathematics, University of Niš (Niš, Serbia)
- **Vladimir DRAGOVIC**
  Mathematical Institute SANU (Belgrade, Serbia)
- **Miroljub DUGIC**
  Faculty of Sciences and Mathematics, University of Kragujevac (Kragujevac, Serbia)
- **Predrag JOVANOVIC**
  Astronomical Observatory (Belgrade, Serbia)

Representative Committee

- **Alexandru MARCU**
  Faculty of Physics, University of Babes-Bolyai (Cluj- Napoca, Romania)
- **Marijan MILEKOVIC**
  Faculty of Sciences, University of Zagreb (Zagreb, Croatia)
- **Argyris NIKOLAIDIS**
  Aristotle University of Thessaloniki (Thessaloniki, Greece)
- **Branislav SAZDOVIC**
  Center for Theoretical Physics, Institute of Physics (Belgrade, Serbia)
- **Yurii SITENKO**
  Bogolyubov Institute for Theoretical Physics, National Academy of Science (Kyiv, Ukraine)
- **Kayhan ULKER**
  Physics Department, Mimar Sinan Fine Arts University (Istanbul, Turkey)
- **Mihai VISINESCU**
  National Institute for Physics and Nuclear Engineering (Bucharest, Romania)
- **Dumitru VULCANOV**, President
  Faculty of Physics, West University of Timisoara (Timisoara, Romania)

The SEENET-MTP Office

- The decision on forming the SEENET-MTP Office brought the members of the Executive Committee during the Scientific Meeting QM2005 in November 2005 in Niš.
- Decisions that the SEENET-MTP Office with a temporary headquarters in Niš grows into a permanent office at the Faculty of Sciences and Mathematics Niš and that the Executive Director of the Network is also the Director of the SEENET-MTP Office have been adopted at the meeting of the Representative Committee during the Scientific Meeting SSSCP2009 in Niš, April 2009
- The SEENET-MTP Office as a Division of the Faculty Center for Advanced Study in Natural and Mathematical Sciences exists since March 2011.
- Scientific secretary – Dr Dragoljub Dimitrijevic (2011 -)
- Web master – Msc Milan Milosevic (2005 -)

Main Results and Activities

- Mobility program:
  - *About 220 exchanges (both researchers and students) in the region (2005-2015) in average 20 per year*
  - *Duration of visits: one week (for students up to one month)*
- Network meetings: 20 *meetings in 10 years, about 1000 participants*
- Publications-Monographs, Network Conference Proceedings: *about 15 issues*
- Research: *Numerous joint papers with acknowledgements to UNESCO and ICTP for support, partially or even fully based on collaboration during exchanges*
- SEENET-MTP web portal became one of the most popular source of information concerning MTP in our region:
- Promotion of science in particular physics (main activities in Serbia):
  - *30 lectures and 3 books*
  - *Meetings and Competitions of High School students and undergraduate students: "Science and Society" in Craiova and Turnu Severein (Romania) in 2008, 2009 and 2011*
  - *Special class for high school students with special interests in sciences, Nis, Serbia, www.pmf.ni.ac.rs/f_odeljenje*

Results

- Around 1000 researchers, students, teachers and pupils took a part in the events and programs mentioned above in the period 2002 – 2015
- Around 200 scientific papers in fields of Particle Physics, Quantum Field Theory, Cosmology published with an acknowledgement to these projects and programs
- More than 20 various types of joint scientific meetings
- Several books, monographs and similar publications have been published
- 11 projects with UNESCO
- 6 Projects with ICTP
- 1 Project with Bavarian Ministry for research
- 3 projects with CEI Trieste
- One multilateral project: ICTP, UNESCO Venice, EPS, CEI and SEENET-MTP

Problems

- Lack of additional financial sources in the region
- Except ICTP PRJ-09 and CERN – SEENET-MTP PhD, mostly short-term (annual) projects till now …
- Lack of sources for cofunding at the level of Universities and Faculties, beside a real difficult situation it is followed by a pure tradition in international cooperation and missing support for investments inside institutions. Problem at the level of local community
- Lack of administrative and human capacities in the all phases of such kind of cooperation.
- Ongoing negotiation with Serbian Ministry for Education and Science for a sustainable centre in MTP in Serbia (Nis)

Network Meetings in Serbia 2003-2013

- **BW2003** - Mathematical, Theoretical and Phenomenological Challenges Beyond the Standard Model (Vrnjacka Banja)
- **BW2005** - II Southeastern European Workshop: Challenges Beyond the Standard Model (Vrnjacka Banja)
- **QM2005** - Quantum Models on Noncommutative and Deformed Spaces (Nis)
- **STMP2006** - Selected Topic in Modern Physics (Nis)
- **SQ2007** - New methods in string theory and quantization (Nis)
- **SQIQC07** - School Of Quantum Information And Quantum Computation (Kragujevac)
- **BW2007** - III Southeastern European Workshop: Challenges Beyond the Standard Model (Kladovo)
- **SSSCP2009** - Spring School on Strings, Cosmology and Particles (Belgrade/Nis)
- **BSI2011** - Balkan Summer Institute 2011 (Nis/Donji Milanovac)
  - **BSS2011** Seminar : Trends in Modern Physics
  - **BS2011** School : Cosmology and Particle Physics Beyond the Standard Models
  - **JW2011** Workshop: Scientific and Human Legacy of Julius Wess
  - **BW2011** Workshop: Particle Physics from TeV to Plank Scale
- **BW2013 –** Beyond the Standard Models (Vrnjacka Banja)
- **p-ADICS.2015** - International Conference on p-Adic Mathematical Physics and its Applications (Belgrade)

Network meetings in the region 2006-2015

- **QFTHS2006** - The Spring School in Quantum Field Theory and Hamiltonian Systems (Craiova, Romania)
- **MMP2006** - International School on Modern Trends in Mathematical Physics (Sofia, Bulgaria)
- **NTST2008** - International Workshop on New Trends in Science and Technology (Ankara, Turkey)
- **MMP2008** - International School on Modern Trends in Mathematical Physics (Varna, Bulgaria)
- **QFTHS2010** - Spring School and Workshop in Quantum Field Theory and Hamiltonian Systems (Craiova & Calimanesti, Romania)
- **QFTHS and Science Policy 2012** - The Joint Meeting on Mathematical Physics and Science Policy (Craiova, Romania)
- **TIM-13** – Physics Conference (Timisoara, Romania)
- **QFTHS 2014** - Quantum Field Theory and Hamiltonian Systems (Sinaia, Romania)
- **TIM-14** – Physics Conference (Timisoara, Romania)
- **2015** - “Lights of the World” (Craiova/Bucharest, Romania)

SEE-CEI-ERA Project

- **Towards the integration of the physics community in CEI countries into the ERA (SEE-CEI-ERA)**
- The SEENET-MTP Network, as the the member of Consortium: EPS, ICTP and UNESCO Office Venice
  - Supported by CEI Trieste
  - During: year 2014.
- Part of activities of the EPS Committee of European Integration.
- The aim of project - to bring together scientists, EU officials and science policy experts, as well as representatives of the SEENET-MTP partner institutions, to establish a strategic partnership between leading scientific institutions and researchers from South-Eastern, Central-East and Western European countries, as well as to consider concrete calls and forthcoming calls for joint projects.

SEE-CEI-ERA Project

- The main goals
  - to establish a strategic and project partnership between leading scientific institutions and researchers from SE-CE and European countries
  - to identify specific actions and to prepare joint applications of to Horizon 2020 Programme and similar European and Paneuropean Programmes.

- The project was implemented with Physics Society Niš as the logistics partner in cooperation with CEI Trieste. The SEENET-MTP Office, and its web portal, provided support in implementation and dissemination of the Project.

SEE-CEI-ERA Project

- **Activities**
  - **Workshop in Bucharest, 25 – 27 May 2014**
    "Widening Participation of CEI Countries in the EU Research Programs"
    – Training-Research in Physics
  - **Workshop in Sofia, November 23 – 25, 2014**
    "Promotion of physics in the CEI countries and Integrating Access to Research Infrastructures in Europe"
  - **Workshop in Trieste, December 11-12th, 2014**
    "Workshop on Physics Education"

CERN - SEENET-MTP PhD program

- The main part - a **series of intense, self-connected, one-week seminars for PhD students**.
- In some exceptional well justified cases Master students in the last year, as well as young postdocs could be included.
- Each seminar will include lectures followed by appropriate exercises, given by 2-3 professors-specialist and 1-2 assistants.
- It is planned to organize 3-5 seminars per year, but …
- The full SEENET-MTP member nodes are the main partners in the Program, but the other nodes and partner institutions, as well as individuals, are also able to join the program.
- Travel expenses and most of the local expenses is covered. Selection of students and coordination of the program is the join responsibility of the Program Committee and local organizer of the particular events.
- Some high-level institutions from Europe are expected to join and support the program, as ICTP …

CERN - SEENET-MTP PhD program

- **Seminars:**
  - Belgrade (Serbia), 21 – 27 June, 2015
    "Supergravity"
  - Bucharest (Romania), 8-14 November, 2015
    "Modern Aspects of Quantum Field Theory"

- **Possible seminars:**
  - Timisoara (spring 2016)
  - Sofia (autumn 2016)
  - Zagreb (spring 2017)
  - Nis (autumn 2017)
  - Kiev, Istanbul, Thessaloniki , Craiova...

The CERN – SEENET-MTP PhD Program - Questionnaire -

City	No. Students (Interested in the Program)	Topic	Proposed Time	Note
Belgrade	6	Supergravity	21-27 June 2015	Already organized
Bucharest	13	Modern Aspects of Quantum Field Theory	8-14 November 2015	Already organized
Craiova	1	Nonlinear and Constrained Dynamics	2016	
Istanbul	7	Quantum Field Theory, Conformal Field Theory, Cosmology and Inflation, Neutrino Physics		
Kiev	12	Introduction to Conformal Field Theory, Introduction to Modern Cosmology, Introduction to Statistical Theory of Strong Interaction Matter, Introduction to QEH in Graphene, Physics of DNA	May, 2016	(mentors' e-mails instead of students', whishlists missinig)
Ljubljana	1			
Nis	6	Introduction to cosmology and inflation		
Sofia	14	Supersymmetry, Geometric Methods in Mathematical Physics	September, 2015	(no students' e-mails, whishlists missing)
Thessaloniki	6			(only first or last name, no students' e-mails, whishlists missinig)
Timisoara	6	Dirac equation in curved spacetimes, Computational methods in Cosmology, Fields interactions in Curved spacetimes	April, 2016	(whishlists missing)
Zagreb	11			
	Total: 83			

The CERN – SEENET-MTP PhD Program - Whishlist -

Topic	Freq
Mathematical methods in quantum physics	9
Supersymmetry	9
Adv. math. subjects with application in phy.	8
General relativity	8
Particle physics	8
Quantum field theory	8
Supergravity	8
Cosmology	7
Nonlinear dynamics	7
String theory	7
Gravitation	7
Astrophysics and cosmology	5
Hadronic physics	5
Integrable systems	5
Quantum information	5
BSM phenomenology	4
High Energy Physics	4
Inflation	4
Astrophysics	2
Black hole thermodynamics	2
Condensed Matter Physics	2
Mathematical Physics	2
Neutrino Physics	2
Path integrals	2
Black holes	2

Topic	Freq
Astroparticle physics	1
Batalin-Vilkovisky formalism	1
Collider phenomenology	1
Complex Phenomena in Spatial Plasma Phy.	1
Composite Higgs	1
Computational physics	1
Conformal field theory	1
Dark matter	1
Exotic stars	1
Gauge/gravity duality	1
Higher spin theories	1
Intermitence	1
Lattice QCD	1
Nuclear Physics	1
Observational cosmology	1
QCD	1
Renormalization group in SUSY theories	1
Soft Matter Physics	1
Sterile neutrinos	1
Superstrings	1
Topological field theories	1

The CERN – SEENET-MTP PhD Program - Proposed Cources -

City	Topic	Name	Institution	Tutor
Belgrade	Canonical structure of constrained systems	Banislav Cvetković	University of Belgrade, Institute of Physics	Branislav Cvetković
Belgrade	Selected topics in supersymmetry	Voja Radovanović	University of Belgrade, Institute of Physics	Voja Radovanović
Craiova	Nonlinear Dynamics	R.Constantinescu	University of Craiova	Carmen Ionescu
Istanbul	Conformal Field Theory	Cemsinan Deliduman Deliduman	MSFAU	Ulas Saka
Istanbul	Quantum Field Theory	Kayhan Ulker	MSFAU	Oguzhan Kasikci
Istanbul	Cosmology and Inflation	Nefer Vedat Senoguz	MSFAU	Devin Cesmecioglu
Istanbul	Neutrino Physics	Yamac Pehlivan Pehlivan	MSFAU	Savas Birol
Kiev	Introduction to Conformal Field Theory	Alexander Belavin	Landau Institute for Theoretical Physics	Nikolai Iorgov
Kiev	Introduction to Statistical Theory of Strong Interaction Matter	Kirill Bugaev	Bogolyubov Institute for Theoretical Physics	Alexey Ivanytskyi
Kiev	Physics of DNA	Sergej Volkov	Bogolyubov Institute for Theoretical Physics	Sergiy Perepelytsya,
Kiev	Introduction to QEH in Graphene	Valery Gusynin	Bogolyubov Institute for Theoretical Physics	Sergei Sharapov
Kiev	Introduction to Modern Cosmology	Yuri Shtanov	Bogolyubov Institute for Theoretical Physics	Dmytro Iakubovskyi
Niš	Introduction to inflation - Tacyon inflation	Goran Djordjevic	Faculty of Science, University of Nis	
Niš	TBA	Ljubisa Nesic	Faculty of Science, University of Nis	
Sofia	Supersymmetry	Boyka Aneva	The Institute for Nuclear Research and Nuclear Energy, Sofia	
Sofia	Geometric Methods in Mathematical Physics	Dimitar Mladenov	Faculty of Physics,University of Sofia	
Timisoara	Fields interactions in Curved spacetimes	Cosmin Crucean	Faculty of Physics, West University of Timisoara	
Timisoara	Computational methods in Cosmology	Dumitru Vulcanov	Faculty of Physics, West University of Timisoara	
Timisoara	Dirac equation in curved spacetimes	Ion Cotaescu	Faculty of Physics, West University of Timisoara	

The CERN – SEENET-MTP PhD Program - Students -

- **Belgrade**
  - Dragoljub Gočanin, *gocanindragoljub@yahoo.com*
  - Nikola Konjik, *konjik@hotmail.com*
  - Dejan Simić, *deki_simic@hotmail.com*
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  - Dragan Prekrat, *dragan.prekrat@gmail.com*
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- **Bucharest**
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  - Orlandea Marius Ciprian, *orlandea@ifin.nipne.ro*
  - Babalic Nicoleta Corina, *b_coryna@yahoo.com*
  - Cristinel Stoica, *cristi.stoica@theory.nipne.ro*
- **Craiova**
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- **Istanbul**
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  - Zhivko Stoyanov NULL
  - Yulia Mutafchieva NULL
  - Kalin Marinov NULL
  - Dimitar Nedanovski NULL
  - Stanislav Varbev NULL
  - Aleksander Stefanov NULL
  - Petar Kokarchev NULL
  - Tsevetan Vetsov NULL
  - Stefan Mladenov NULL
  - Boyan Lazov NULL
  - Kalin Staykov NULL
  - Lachezar Simeonov NULL
  - Kaloyan Zlatanov NULL
  - Dimitar Popchev NULL
- **Thessaloniki**
  - Iosefidis NULL
  - Kalamakis NULL
  - Filotheodoros NULL
  - Aliferis NULL
  - Jaehoon Jeong NULL
  - Vasilis Kiosses NULL
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- **Belgrade**
  - Dragoljub Gočanin, Nikola Konjik, Dejan Simić, Biljana Nikolić, Dragan Prekrat, Luka Nenadović
- **Bucharest**
  - Dumitriu Ana Elena, Iancu Vicentiu, Baran Virgil, Romanitan Cosmin, Giubega Lavinia Elena, Tatiana Mihaescu, Tarna Grigore, Stroe Mircea, Valcea Valentin, Eliza Teodorescu, Orlandea Marius Ciprian, Babalic Nicoleta Corina, Cristinel Stoica
- **Craiova**
  - Predatu Marian
- **Istanbul**
  - Vildan Keles Tugyanoglu, Oguzhan Kasikci, Basak Ekinci, Taygun Bulmus, Mehmet Helva, Devin Cesmecioglu, Ozlem Ozcelik
- **Kiev**
  - V. Naboka, V. Shapoval, V.Sagun, V.Chelnokov, R. Poberezhnyuk, M.Sydorenko, I. Ivanchenko, K. Ershov, O. Sobol, O. Zdorevsky, P. Gavrylenko, A. Shchechkin
- **Ljubljana**
  - Darius Faroughy
- **Niš**
  - Dragoljub Dimitrijevic, Milan Milosevic, Darko Radovancevic, Marko Dimitrijevic, Igor Petrovic, Marko Stojanovic
- **Sofia**
  - Zhivko Stoyanov, Yulia Mutafchieva, Kalin Marinov, Dimitar Nedanovski, Stanislav Varbev , Aleksander Stefanov, Petar Kokarchev, Tsevetan Vetsov, Stefan Mladenov, Boyan Lazov, Kalin Staykov, Lachezar Simeonov, Kaloyan Zlatanov, Dimitar Popchev
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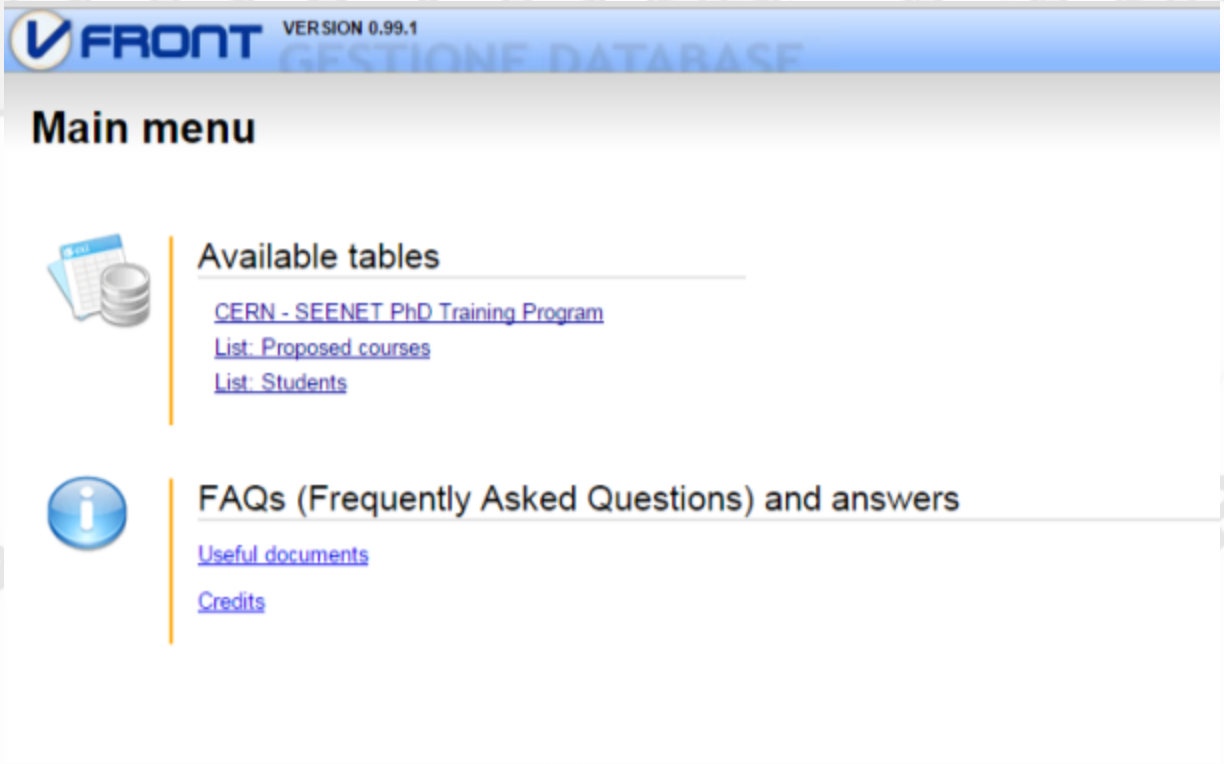
- **Timisoara**
  - Chilom Alin, Sporea Adrian Ciprian, Baloi Mihaela-Andrea, Blaga Robert Christian, Busuioc Sergiu, Roman Roxana
- **Zagreb**
  - Tamara Stemberga, Goran Popara, Petar Culjak, Anamarija Kirin, Danijel Pikutic, Boris Ivetic, Dijana Tolic, Bruno Klajn, Tajron Juric, Luka Popov, Silvije Domazet

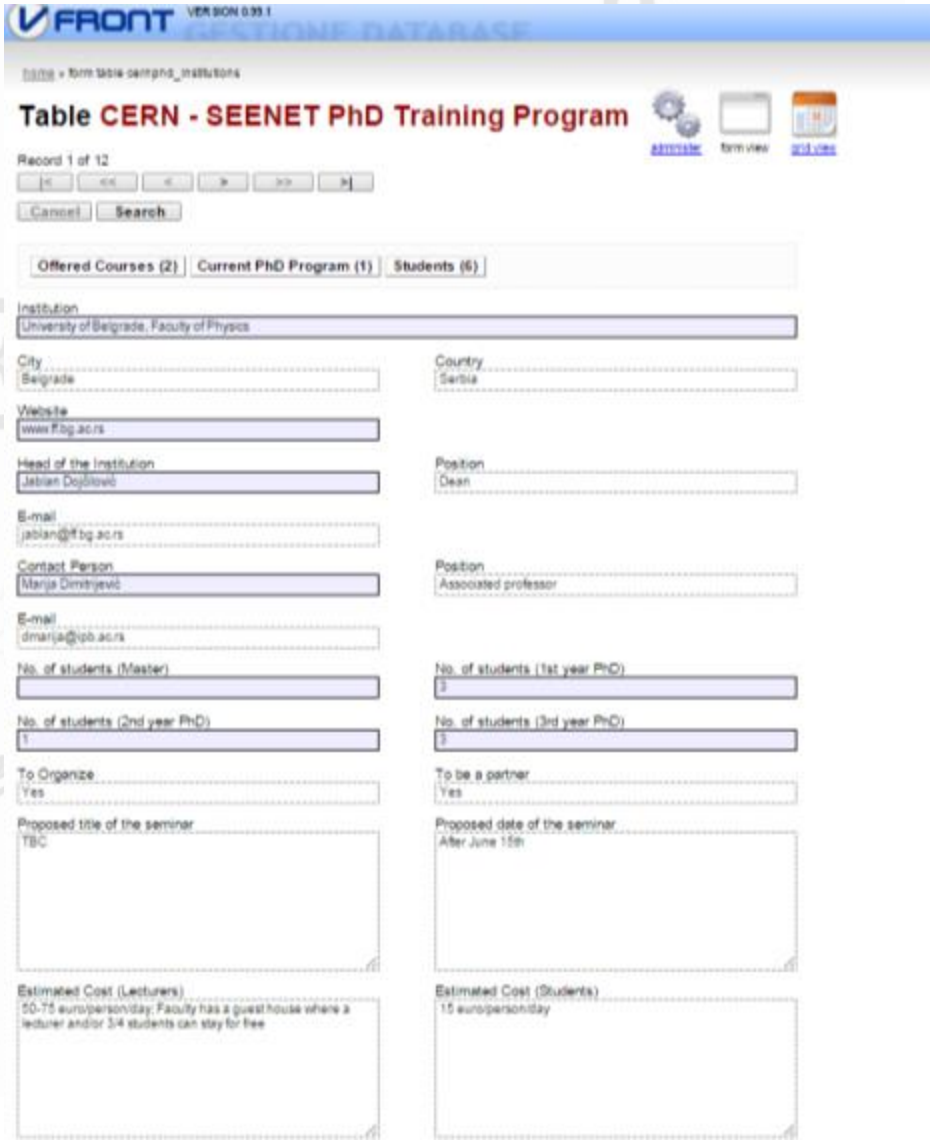
The CERN – SEENET-MTP PhD Program - How to Access and Use Database -

- **URL**: *http://data.seenet-mtp.info/*
  - **Username/e-mail**: *org@seenet-mtp.phd*
  - **Password**: *organizer*



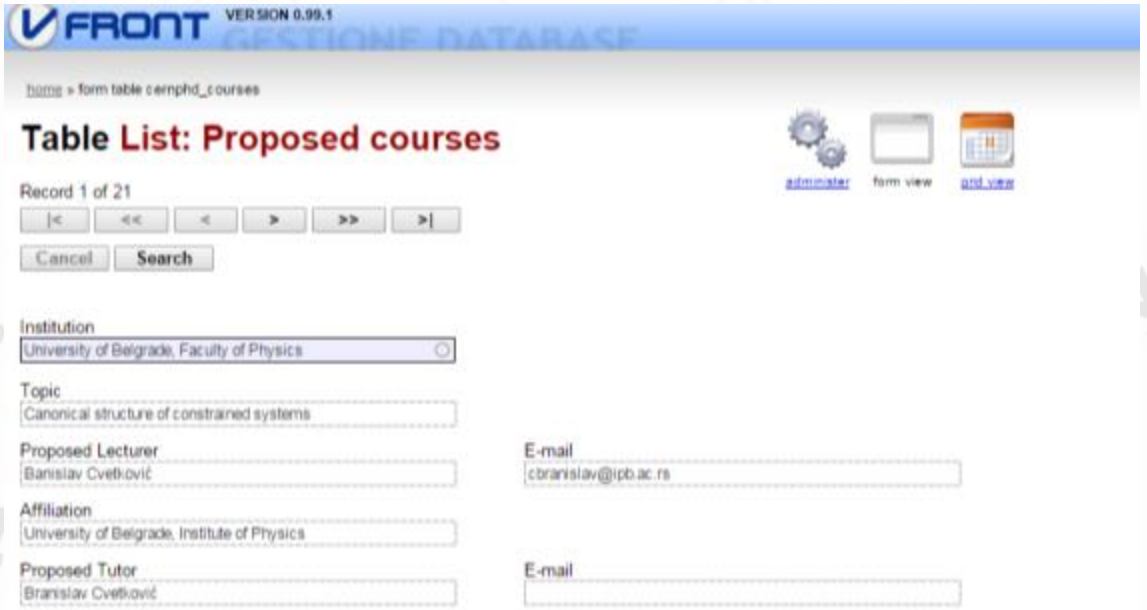
The CERN – SEENET-MTP PhD Program - How to Access and Use Database -

- **"CERN - SEENET PhD Training Program"**
  - Lists information about all institutions.
  - General information about the institution is shown at the first page, the buttons above open list of students from that institution. To navigate between the institutions you can use the buttons at the top.



The CERN – SEENET-MTP PhD Program - How to Access and Use Database -

- **The second table**
  - Proposed courses from all institutions. Besides default form view with navigation at the top, you can use the grid view (button at the top right) to show data in a table form.
  - Data in the table can be sorted by clicking on the header line of the table.



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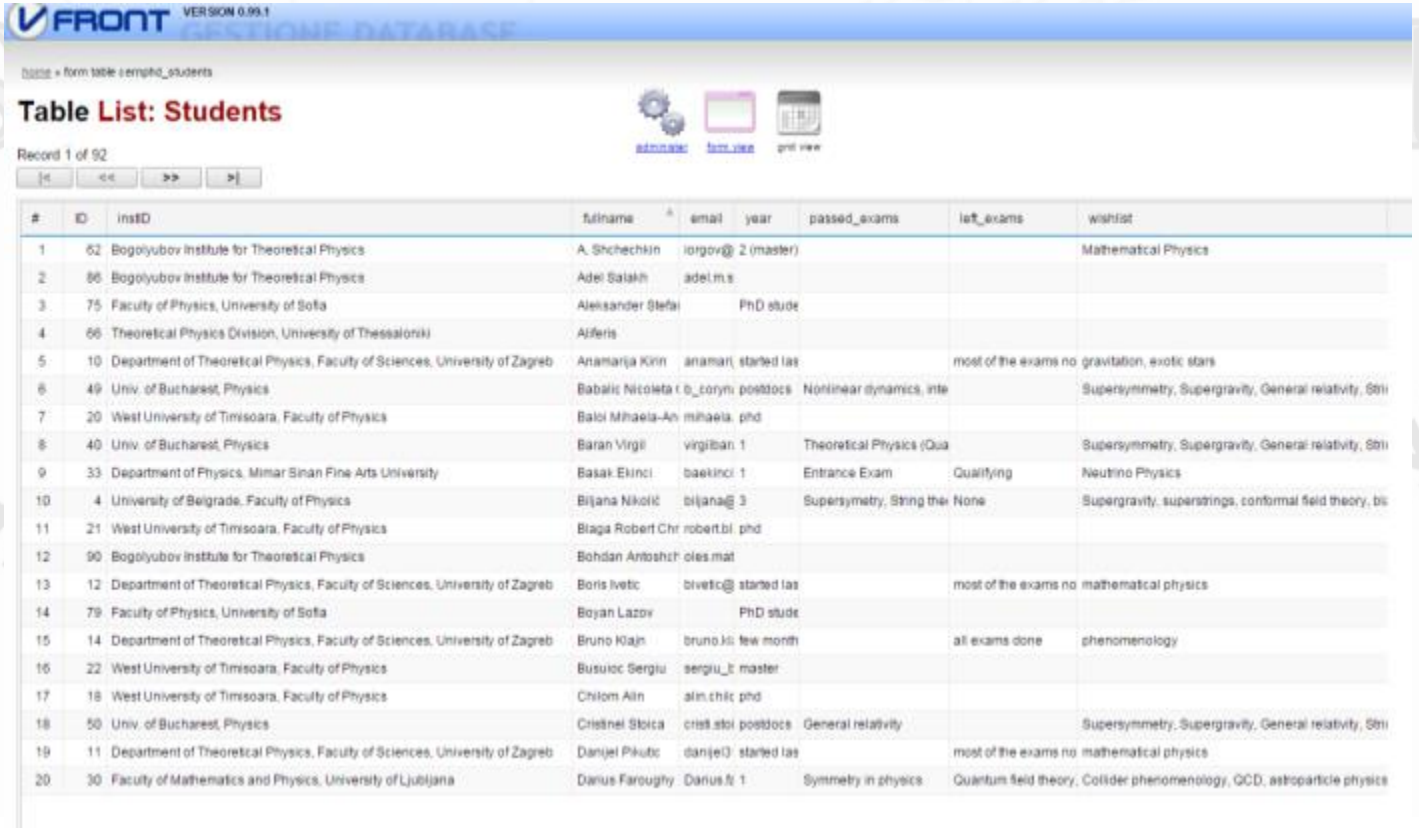
- **The third table**
  - shows the list of the students (institution, name, year and wish list). Also the grid view is available.



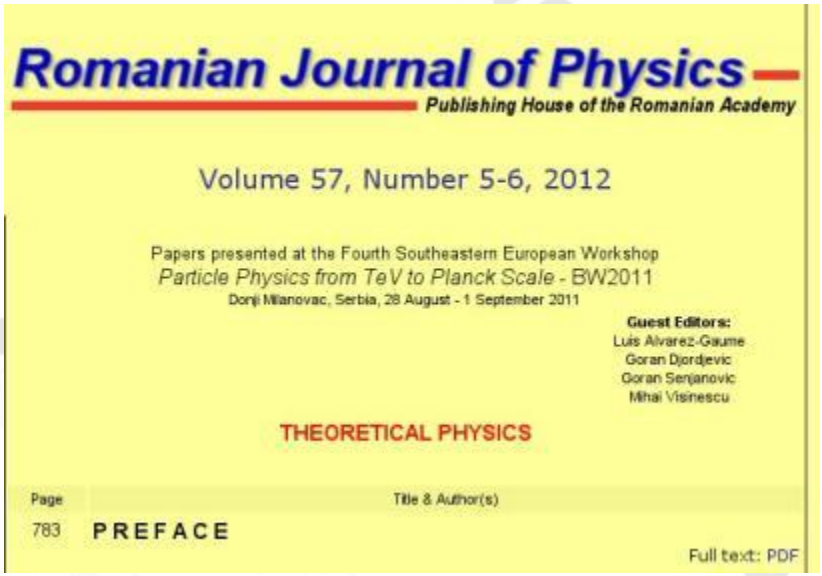
VFRONT VERSION 0.99.1

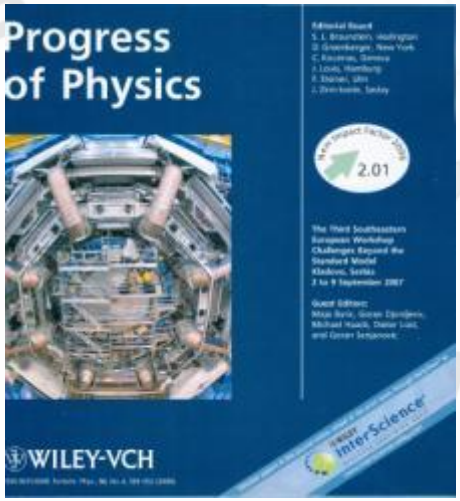
Table List: Students

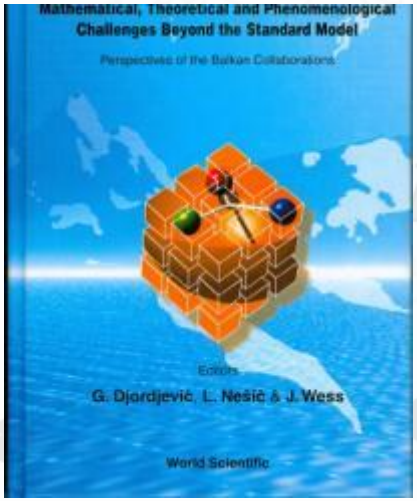
Record 1 of 92

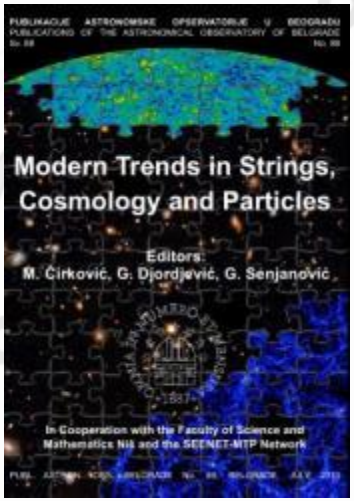
#	ID	instID	fullname	email	year	passed_exams	left_exams	wishlist
1	62	Bogolyubov Institute for Theoretical Physics	A. Shchechkin	iorgov@	2 (master)			Mathematical Physics
2	86	Bogolyubov Institute for Theoretical Physics	Adel Salakh	adel.m.s				
3	75	Faculty of Physics, University of Sofia	Aleksander Stefai		PhD stude			
4	66	Theoretical Physics Division, University of Thessaloniki	Alferis					
5	10	Department of Theoretical Physics, Faculty of Sciences, University of Zagreb	Anamarija Kirin	anamari	started las		most of the exams no	gravitation, exotic stars
6	49	Univ. of Bucharest, Physics	Babalic Nicoleta (	b_coryn	postdocs	Nonlinear dynamics, inte		Supersymmetry, Supergravity, General relativity, Stri
7	20	West University of Timisoara, Faculty of Physics	Baloi Mihaela-An	mihaela.	phd			
8	40	Univ. of Bucharest, Physics	Baran Virgil	virgilban	1	Theoretical Physics (Qua		Supersymmetry, Supergravity, General relativity, Stri
9	33	Department of Physics, Mimar Sinan Fine Arts University	Basak Ekinci	baekinci	1	Entrance Exam	Qualifying	Neutrino Physics
10	4	University of Belgrade, Faculty of Physics	Biljana Nikolić	biljana@	3	Supersymetry, String the	None	Supergravity, superstrings, conformal field theory, bl
11	21	West University of Timisoara, Faculty of Physics	Blaga Robert Chr	robert.bl	phd			
12	90	Bogolyubov Institute for Theoretical Physics	Bohdan Antoshch	oles.mat				
13	12	Department of Theoretical Physics, Faculty of Sciences, University of Zagreb	Boris Ivetic	bivetic@	started las		most of the exams no	mathematical physics
14	79	Faculty of Physics, University of Sofia	Boyan Lazov		PhD stude			
15	14	Department of Theoretical Physics, Faculty of Sciences, University of Zagreb	Bruno Klajn	bruno.kl	few month		all exams done	phenomenology
16	22	West University of Timisoara, Faculty of Physics	Busuioc Sergiu	sergiu_b	master			
17	18	West University of Timisoara, Faculty of Physics	Chiom Alin	alin.chic	phd			
18	50	Univ. of Bucharest, Physics	Cristinel Stoica	cristi.sto	postdocs	General relativity		Supersymmetry, Supergravity, General relativity, Stri
19	11	Department of Theoretical Physics, Faculty of Sciences, University of Zagreb	Danijel Pikutic	danijel3	started las		most of the exams no	mathematical physics
20	30	Faculty of Mathematics and Physics, University of Ljubljana	Darius Faroughy	Darius.fa	1	Symmetry in physics	Quantum field theory,	Collider phenomenology, QCD, astroparticle physics

Some of Network`s publications









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