

Табела. 9.6. Компетентност наставника

Име и презиме		Антун Ј. Балаж		
Звање		научни саветник		
Ужа научна област		Физика кондензоване материје; Компјутерска физика		
Академска каријера	Година	Институција	Област	Ужа научна одн. уметничка област
Избор у звање	2015	МПНТР, Република Србија	Физика	Физика кондензоване материје
Докторат	2008	Универзитет у Београду	Физика	Квантна и математичка физика
Магистратура	2004	Универзитет у Београду	Физика	Квантна и математичка физика
Мастер диплома	-			
Диплома	1997	Универзитет у Београду	Физика	Квантна и математичка физика
Списак предмета које наставник држи на докторским студијама				
Р.Б.	Ознака	Назив предмета		
1.	ФИЗДФКН9	Квантна механика сложених система		
2.	ФИЗДФКМ13	Квантне течности		
3.	ФИЗДФВО2	Монте Карло симулације у физици		
Најзначајнији радови у складу са захтевима допунских услова стандарда за дато поље (мин. 10 не више од 20)				
1.	R. Ravisankar, D. Vudragovic, P. Muruganandam, A. Balaz, S. K. Adhikari, Spin-1 Spin-orbit- and Rabi-coupled Bose-Einstein Condensate Solver, Comput. Phys. Commun. 259, 107657 (2021).			M21a
2.	R. Kishor Kumar, V. Loncar, P. Muruganandam, S. K. Adhikari, A. Balaz, C and Fortran OpenMP Programs for Rotating Bose-Einstein Condensates, Comput. Phys. Commun. 240, 74 (2019).			M21a
3.	A. Hudomal, I. Vasic, H. Buljan, W. Hofstetter, A. Balaz, Dynamics of Weakly Interacting Bosons in Optical Lattices with Flux, Phys. Rev. A 98, 053625 (2018).			M21
4.	V. Veljic, A. Lima, L. Chomaz, S. Baier, M. J. Mark, F. Ferlaino, A. Pelster, A. Balaz, Ground State of an Ultracold Fermi Gas of Tilted Dipoles in Elongated Traps, New J. Phys. 20, 093016 (2018).			M21
5.	V. Veljic, A. Balaz, A. Pelster, Time-of-flight Expansion of Trapped Dipolar Fermi Gases: from the Collisionless to the Hydrodynamic Regime, Phys. Rev. A 95, 053635 (2017).			M21
6.	I. Vasic, A. Balaz, Excitation Spectra of a Bose-Einstein Condensate with an Angular Spin-orbit Coupling, Phys. Rev. A 94, 033627 (2016).			M21
7.	T. Khellil, A. Balaz, A. Pelster, Analytical and Numerical Study of Dirty Bosons in a Quasi-one-dimensional Harmonic Trap, New J. Phys. 18, 063003 (2016).			M21
8.	R. Kishor Kumar, L. Young-S., D. Vudragovic, A. Balaz, P. Muruganandam, S. K. Adhikari, Fortran and C Programs for the Time-dependent Dipolar Gross-Pitaevskii Equation in an Anisotropic Trap, Comput. Phys. Commun. 195, 117 (2015).			M21a
9.	A. Balaz, et al., Faraday Waves in Collisionally Inhomogeneous Bose-Einstein Condensates, Phys. Rev. A 89, 023609 (2014).			M21a
10.	D. Vudragovic, I. Vidanovic, A. Balaz, P. Muruganandam, S. K. Adhikari, C Programs for Solving the Time-dependent Gross-Pitaevskii Equation in a Fully Anisotropic Trap, Comput. Phys. Commun. 183, 2021 (2012).			M21a
11.	A. Balaz, A. I. Nicolin, Faraday Waves in Binary Nonmiscible Bose-Einstein Condensates, Phys. Rev. A 85, 023613 (2012).			M21a
12.	I. Vidanovic, A. Balaz, H. Al-Jibbouri, A. Pelster, Nonlinear Bose-Einstein-condensate Dynamics Induced by a Harmonic Modulation of the S-wave Scattering Length, Phys. Rev. A 84, 013618 (2011).			M21a
13.	A. Balaz, I. Vidanovic, A. Bogojevic, A. Pelster, Ultra-fast Converging Path-integral Approach for Rotating Ideal Bose-Einstein Condensates, Phys. Lett. A 374, 1539 (2010).			M21
14.	A. Balaz, A. Bogojevic, I. Vidanovic, A. Pelster, Recursive Schroedinger Equation Approach to Faster Converging Path Integrals, Phys. Rev. E 79, 036701 (2009).			M21
15.	A. Bogojevic, A. Balaz, A. Belic, Systematically Accelerated Convergence of Path Integrals, Phys. Rev. Lett. 94, 180403 (2005).			M21a
Збирни подаци научне активности наставника				
Укупан број цитата, без аутоцитата (Web of Science)				881
Укупан број радова са SCI (или SSCI) листе				69
Тренутно учешће на пројектима				Домаћи: 1 Међународни: 3
Усавршавања: University of Duisburg-Essen (2007); Free University of Berlin (2009, 2010, 2011); Hanse-Wissenschaftskolleg/University of Oldenburg (2012, 2013); Technical University of Kaiserslautern (2013-)				
Други подаци које сматрате релевантним: координатор тимова и руководиоца радних пакета у већем броју ФП6, ФП7 и Хоризонт 2020 пројеката; руководиоца билатералних пројеката са Немачком од 2009. год. и Аустријом (2016-2017); предавања по позиву на међ. конференцијама и страним универзитетима и институтима; рецензент у водећим часописима из области; руководиоца Центра изузетних вредности за изучавање комплексних система.				

Table 9.6 Teachers' competences

Name and family name		Antun J. Balaz̄		
Title		Research Professor		
Narrow scientific area		Condensed Matter Physics; Computational Physics		
Academic career	Year	Institution	Area	Narrow scientific or art area
Election to the title	2015	MESTD, Republic of Serbia	Physics	Condensed Matter Physics
PhD	2008	University of Belgrade	Physics	Quantum & Mathematical Physics
Master degree	2004	University of Belgrade	Physics	Quantum & Mathematical Physics
Master diploma	-			
Diploma	1997	University of Belgrade	Physics	Quantum & Mathematical Physics
List of subjects the teacher is lecturing in doctoral studies				
No.	Mark	Subject name		
1.	ФИЗДФКН9	Quantum Mechanics of Complex Systems		
2.	ФИЗДФКМ13	Quantum liquids		
3.	ФИЗДФВО2	Monte Carlo Simulations in Physics		
The most important papers, according to additional requirements of the standard for the field (min. 10, not more than 20)				
1.	R. Ravisankar, D. Vudragovic, P. Muruganandam, A. Balaz, S. K. Adhikari, Spin-1 Spin-orbit- and Rabi-coupled Bose-Einstein Condensate Solver, <i>Comput. Phys. Commun.</i> 259, 107657 (2021).			M21a
2.	R. Kishor Kumar, V. Loncar, P. Muruganandam, S. K. Adhikari, A. Balaz, C and Fortran OpenMP Programs for Rotating Bose-Einstein Condensates, <i>Comput. Phys. Commun.</i> 240, 74 (2019).			M21a
3.	A. Hudomal, I. Vasic, H. Buljan, W. Hofstetter, A. Balaz, Dynamics of Weakly Interacting Bosons in Optical Lattices with Flux, <i>Phys. Rev. A</i> 98, 053625 (2018).			M21
4.	V. Veljic, A. Lima, L. Chomaz, S. Baier, M. J. Mark, F. Ferlaino, A. Pelster, A. Balaz, Ground State of an Ultracold Fermi Gas of Tilted Dipoles in Elongated Traps, <i>New J. Phys.</i> 20, 093016 (2018).			M21
5.	V. Veljic, A. Balaz, A. Pelster, Time-of-flight Expansion of Trapped Dipolar Fermi Gases: from the Collisionless to the Hydrodynamic Regime, <i>Phys. Rev. A</i> 95, 053635 (2017).			M21
6.	I. Vasic, A. Balaz, Excitation Spectra of a Bose-Einstein Condensate with an Angular Spin-orbit Coupling, <i>Phys. Rev. A</i> 94, 033627 (2016).			M21
7.	T. Khellil, A. Balaz, A. Pelster, Analytical and Numerical Study of Dirty Bosons in a Quasi-one-dimensional Harmonic Trap, <i>New J. Phys.</i> 18, 063003 (2016).			M21
8.	R. Kishor Kumar, L. Young-S., D. Vudragovic, A. Balaz, P. Muruganandam, S. K. Adhikari, Fortran and C Programs for the Time-dependent Dipolar Gross-Pitaevskii Equation in an Anisotropic Trap, <i>Comput. Phys. Commun.</i> 195, 117 (2015).			M21a
9.	A. Balaz, et al., Faraday Waves in Collisionally Inhomogeneous Bose-Einstein Condensates, <i>Phys. Rev. A</i> 89, 023609 (2014).			M21a
10.	D. Vudragovic, I. Vidanovic, A. Balaz, P. Muruganandam, S. K. Adhikari, C Programs for Solving the Time-dependent Gross-Pitaevskii Equation in a Fully Anisotropic Trap, <i>Comput. Phys. Commun.</i> 183, 2021 (2012).			M21a
11.	A. Balaz, A. I. Nicolin, Faraday Waves in Binary Nonmiscible Bose-Einstein Condensates, <i>Phys. Rev. A</i> 85, 023613 (2012).			M21a
12.	I. Vidanovic, A. Balaz, H. Al-Jibbouri, A. Pelster, Nonlinear Bose-Einstein-condensate Dynamics Induced by a Harmonic Modulation of the S-wave Scattering Length, <i>Phys. Rev. A</i> 84, 013618 (2011).			M21a
13.	A. Balaz, I. Vidanovic, A. Bogojevic, A. Pelster, Ultra-fast Converging Path-integral Approach for Rotating Ideal Bose-Einstein Condensates, <i>Phys. Lett. A</i> 374, 1539 (2010).			M21
14.	A. Balaz, A. Bogojevic, I. Vidanovic, A. Pelster, Recursive Schroedinger Equation Approach to Faster Converging Path Integrals, <i>Phys. Rev. E</i> 79, 036701 (2009).			M21
15.	A. Bogojevic, A. Balaz, A. Belic, Systematically Accelerated Convergence of Path Integrals, <i>Phys. Rev. Lett.</i> 94, 180403 (2005).			M21a
Cumulative data of scientific activity of the teacher				
Total number of citations, without self-citations (Web of Science)				881
Total number of papers on the SCI (or SSCI) list				69
Current participation in projects				National: 1 International: 3
Specialization: University of Duisburg-Essen (2007); Free University of Berlin (2009, 2010, 2011); Hanse-Wissenschaftskolleg/University of Oldenburg (2012, 2013); Technical University of Kaiserslautern (2013-)				
Other information you consider to be important: coordinator of teams and workpackage leader in numerous FP6, FP7, and Horizon 2020 projects; leader of bilateral projects with Germany since 2009 and with Austria (2016-2017); invited lectures at				

international conferences and foreign universities and institutes; referee in leading journals in the field; head of the Center of Excellence for the Study of Complex Systems.