

RANG LISTA FIZIČARA SRBIJE 2023

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Kratak sadržaj: U ovom radu je prikazana rang lista 20 najboljih fizičara Srbije u 2023. godini. Vrednovanje naučno-istraživačkog rada fizičara treba da zadovolji dve stvari: prva je da se fizičar bavi naučno-istraživačkim radom, a druga je da objavljuje naučne radove (publikacije), koje drugi naučnici citiraju. Rang lista fizičara, u ovom radu, je formirana prema h-indeksu i broju citata. Fizičari koji imaju isti h-indeks, rangirani su prema ukupnom broju citata. Prikazana lista fizičara obuhvata 20 istraživača sa minimalnim h-indeksom 33. Vrednosti h-indeksa i broja citata su preuzete iz baze podataka Google Scholar-a.

Ključne reči: h-indeks, citati, fizičar, baza podataka Google Scholar, bibliografski podaci.

BEST-RANKING PHYSICISTS IN SERBIA IN 2023

Abstract: This paper presents the ranking list of the 20 best physicists in Serbia in 2023. Evaluating the scientific research work of a physicist should satisfy two things: that the physicist engages in scientific research work and that he publishes scientific works (publications), which other scientists cite. The ranking list of physicists is formed according to the h-index and the number of citations. Physicists with the same h-index are ranked according to the total number of citations. The displayed list of physicists includes 20 researchers with a minimum h-index of 33. The determination of the h-index and the number of citations was arranged using the Google Scholar database.

Key Words: h-index, citations, physicist, Google Scholar database, bibliographic data.

1. UVOD

Vrednovanje naučnog rada se u naučnoj metrici određuje pomoću nekoliko parametara: broja naučnih radova, broja citata za određeni naučni rad, ukupnog broja citata za sve radove naučnika, h-indeksa i g-indeksa [1, 2]. Citiranje predstavlja upućivanje u naučnom radu jednog istraživača na naučni rad drugog istraživača. Citat predstavlja navođenje dela naučnog rada jednog istraživača u radu drugog istraživača [3]. Merenje citata, u naučnoj metrici, je samo jedan od načina da se istakne kvalitet naučnog rada. Najvažnije informacije u citatima su: ime i prezime istraživača koji se citira, naslov rada koji se citira i ime publikacije u kojoj je objavljen citirani rad [4].

2005. godine fizičar Jorge Hirš (Jorge E. Hirsch) sa Kalifornijskog univerziteta u San Dijegu je definisao h-indeks koji glasi [5]: „Naučnik ima h-indeks ako h-indeks njegovih N radova ima najmanje h citiranja svaki i ako preostalih $(N-h)$ radova nemaju više od h citata svaki.”

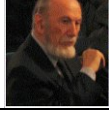
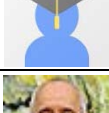
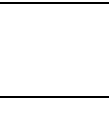
h-indeks, poznat i pod nazivom Hirš indeks, zasnovan je na broju citata [6] i predstavlja broj h naučnih publikacija istraživača koji su dobili najmanje h citata u literaturi [8-38]. Stoga se kvalitet naučnog rada naučnika efikasno može sagledati preko ukupnog broja citata i h-indeksa naučnika.

2. RANG LISTA FIZIČARA SRBIJE

U Republici Srbiji ima više Univerziteta na kojima se izučava fizika i 2 instituta od nacionalnog značaja – Institut fizike u Beogradu (<http://www.ipb.ac.rs/en/>) i Institut za nuklearne nauke „Vinča” (<https://www.vin.bg.ac.rs/>) Univerziteta u Beogradu. U tabeli 1. je prikazana lista 20 najbolje rangiranih fizičara Srbije za 2023. godinu sa bibliografskim podacima: ime i prezime istraživača, Orcid ID, naziv institucije u kojoj istraživač radi, naučne discipline istraživača (najviše 5), h-indeks (najmanjim 33) i ukupan broj citata [7].

Tabela 1 – Rang lista fizičara Srbije u 2023. godini

1.		Marija Vranješ Milosavljević	Orcid ID: 0000-0003-4477-9733		
		Institute of Physics, Belgrade		Citations	237861
				h-index	226
		high energy physics	supersymmetry	i10-index	984
2.		Nenad Vranješ	Orcid ID: 0000-0001-5415-5225		
		Institute of Physics, Belgrade		Citations	198083
				h-index	183
		High Energy Physics	Particle Physics	Data Analysis	i10-index

3.		Predrag Ćirković Research assistant, Vinca Institute of Nuclear Sciences	Orcid ID: 0000-0002-5865-1952	Citations h-index i10-index	133533 176 689
		physics electronics engineering computer sciences			
4.		Zoran Lj. Petrović Serbian Academy of Sciences and Arts, Belgrade Serbia	Orcid ID: 0000-0001-6569-9447	Citations h-index i10-index	14376 58 242
		nonequilibrium processes low temperature plasma breakdown in gases plasma applications positrons in traps gases and living			
5.		Velimir R. Radmilović Serbian Academy of Sciences and Arts, University of Belgrade	Orcid ID: 0000-0003-3326-4320	Citations h-index i10-index	13184 54 151
		Materials Science & Engine Phase Transformations Metal Physics Nanoscience and nanotech..			
6.		Miroslav D. Dramićanin Professor, Vinca Institute of Nuclear Sciences, University of Belgrade, Serbia	Orcid ID: 0000-0003-4750-5359	Citations h-index i10-index	11884 52 219
		Spectroscopy Materials Science Luminescence Luminescence thermometry lanthanide ions			
7.		Jovan M. Nedeljković Senior chemist, Institut of nuclear sciences Vinca, Belgrade, Serbia	Orcid ID: 0000-0003-4347-5236	Citations h-index i10-index	8868 50 149
		nanomaterials physical chemistry			
8.		Gyula Mester Professor, University Óbuda, Institute of NextTechnologies, Hungary, University of Novi Sad, Serbia	Orcid ID: 0000-0003-4750-5359	Citations h-index i10-index	4109 50 93
		Unmanned Autonomous Sys Robotics and Intelligent Sys. Flying Cars Self-Driving Cars Citation Analysis			
9.		Miomir Vukobratović University of Belgrade, Institute Mihailo Pupin, Robotics Laboratory, Serbia	Orcid ID:	Citations h-index i10-index	16226 47 189
		Robotics Humanoid Robotics			
10.		Popović ZV Institute of Physics Belgrade	Orcid ID: 0000-0001-9138-8642	Citations h-index i10-index	9549 47 212
		Physics			
11.		Miodrag Mitrić Vinca Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade	Orcid ID: 0000-0002-1709-9890	Citations h-index i10-index	9382 47 211
		magnetism and crystal stru...			
12.		Teodor Atanacković Department of Mechanics, Faculty of Technical Sciences, University of Novi Sad	Orcid ID: 0000-0002-8714-1388	Citations h-index i10-index	5646 41 107
		Mechanics			
13.		Milan S. Dimitrijević Astronomical Observatory	Orcid ID: 0000-0001-9138-8642	Citations h-index i10-index	7947 40 166
		Astronomy			
14.		Luka Č. Popović Astronomical Observatory	Orcid ID: 0000-0003-2398-7664	Citations h-index i10-index	5652 40 128
		astrophysics			
15.		Zoran V. Popović Director of Center for Solid State Physics and New Materials, Institute of Physics, Belgrade, Serbia	Orcid ID: 0000-0002-9421-4119	Citations h-index i10-index	5170 40 128
		Solid state spectroscopy Raman scattering Phonons Strongly correlated electron.. Nanomaterials			
16.		Stevan Pilipović Profesor matematike, Emeritus, Univerzitet u Novom Sadu	Orcid ID: 0000-0002-5443-4467	Citations h-index i10-index	6476 38 165
		matematika mehanika			
17.		Biljana Babić Institute of Physics Belgrade	Orcid ID: 0000-0002-6269-7822	Citations h-index	4201 35

		Nanomaterials	porous materials	carbon	i10-index	91
18.		Zorana Dohčević-Mitrović research professor, Institute of physics Belgrade	Orcid ID: 0000-0001-9577-4807			Citations 3495
		nanoscience	h-index 35			i10-index 73
19.		Rastko Vasilic Faculty of Physics, University of Belgrade	Orcid ID: 0000-0002-5818-0150			Citations 2830
		anodization applied physics	luminescence	materials science	h-index 34	
					i10-index 65	
20.		Livija Cvetičanin University of Novi Sad, Serbia; Obuda University, Doctoral School of Safety, Budapest, Hungary	Orcid ID: 0000-0002-1061-4685			Citations 3490
		Nonlinear Vibrations	Dynamics of Mass Variable Systems	h-index 33		
				i10-index 97		

3. ZAKLJUČAK

U radu je prikazana rang lista 20 najcitiranijih fizičara Srbije za 2023. godinu. Prva 3 fizičara su iz oblasti Nuklearne fizike (istraživanja rađena u Cern-u) i zbog toga je njihov *h*-indeks preko 100. Sa liste 16 istraživača (80%) je sa Univerziteta iz Beograda, dok je 4 istraživača (20%) sa Univerziteta iz Novog Sada. Rezultati ukazuju da je glavni centar fizičara-istraživača Beograd. Polovina fizičara istražuje fiziku u institutima – 6 iz Instituta za fiziku u Beogradu, a 4 iz Instituta za nuklearne nauke „Vinča”, dok su preostali fizičari 2 astronomi, 1 fizičar sa fizičkog fakulteta Univerziteta u Beogradu i 2 fizičara iz Srpske akademije nauka i umetnosti (SANU). Važno je da se napomene da je prisustvo žena u nauci značajno. Na prikazanoj listi najcitiranijih ženskih istraživača u Srbiji je 4 žene (20%). Iako nisu dovoljno vidljive, Srbija je jedan od lidera po broju žena u nauci. Prema poslednjim podacima, skoro svaki drugi istraživač je žena, što našu državu stavlja na četvrto mesto u Evropi.

Da bi rang lista bila pravilno formirana, važno je da svaki istraživač iz Srbije ima Google Scholar profil. Prilikom formiranja rang liste poteškoće su bile: istraživači ne navode činjenicu da su iz Srbije (*Serbia*) kako bi ga videli drugi naučnici iz sveta (samo 8 istraživača je navelo da je iz Srbije, što je manje od polovine istraživača!), istraživači ne navode jasno istaknute oblasti istraživanja (na primer: *physics*), ne usaglašena imena istraživača u preostalim značajnim bazama (ORCID) za praćenje aktivnosti samog istraživača na svetskoj sceni.

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