Област 4. Природни науки, математика и информатика

Професионално направление

4.1. Физически науки,
4.2. Химически науки,
4.3. Биологически науки,
4.5. Математика,
4.6. Информатика и компютърни науки

Таблица 1. Минимални изисквани точки по групи показатели за различните научни степени и академични длъжности

Група от показатели	Съдържание	Доктор	Доктор на науките	Главен асистент	Доцент	Професор
А	Показател 1	50	50	50	50	50
Б	Показател 2	-	100	-	-	-
В	Показатели 3 или 4	-	-	-	100	100
Г	Сума от показателите от 5 до 10	30	100	-	200	200
Д	Сума от точките в показател 11	-	100	-	50	100
Е	Сума от показателите от 12 до края	-	-	-	-	150 (100 за ПН 4.5 и ПН 4.6)

СПИСЪК

на научната и публикационна дейност на кандидата гл. ас. д-р Юри Митков Димитров за участие в конкурс за заемане на академична длъжност "ДОЦЕНТ" по дисциплината ВИСША МАТЕМАТИКА“ в научна област 4. Природни науки, математика и информатика,професионално направление 4.5. Математика във връзка с оценка на съответствието с минималните национални изисквания (МНИ)

пока-зате ли	**Показател**	**Брой точки**	**Брой точки на кандидата**
А	1. Дисертационен труд за присъждане на образователна и научна степен „доктор“	50	**50**
	Димитров, Ю., Числени методи за класове диференциални уравнения от дробен ред, Русенски университет „А.Кънчев” (2017)		
В	3. Хабилитационен труд – монография или 4. Хабилитационен труд – научни публикации в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и Scopus)* [1] *Dimitrov, Y., Miryanov, R., Todorov, V., Asymptotic expansions and approximations of the Caputo derivative, Computational and Applied Mathematics 37(4), (2018) 5476-5499* *[IF Q3 2.239]* [2] *Todorov, V., Dimov, I., Ostromsky, Tz., Apostolov, S., Georgieva, R., Dimitrov, Y., Zlatev, Z., Advanced stochastic approaches for Sobol’ sensitivity indices evaluation, Neural Computing and Applications 33, pp. 1999–2014 (2021)* *[IF Q1 5.606]*	100 за монография 25 за публ. в Q1 20 за публ. в Q2 15 за публ. в Q3 12 за публ. в Q4 10 за публ. в издание със SJR без IF 6 за други# публ.	**120** $15.3 = 45$ $25.3 = 75$
Г	5. Публикувана монография, която не е представена като основен хабилитационен труд	30	
	6. Публикувана книга на базата на защитен дисертационен труд за присъждане на образователна и научна степен „доктор“ или за присъждане на научна степен „доктор на науките“	20	
	7. Научна публикация в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и Scopus), извън хабилитационния труд*	25 за публ. в Q1 20 за публ. в Q2 15 за публ. в Q3 12 за публ. в Q4 10 за публ. в издание със SJR без IF 6 за други# публ.	**432** $6.10.3 = 180$ $14.6.3 = 252$
	[1] *Dimitrov Y., Dimov I., Todorov V., Numerical solutions of ordinary fractional differential equations with singularities. Advanced Computing in Industrial*		

	Mathematics, Stud. Comput. Intell., 793, Springer, 2018 [SJR (Scopus) 0.295] [2] *Todorov, V., Dimov, I., Dimitrov, Y., Efficient quasi-Monte Carlo methods for multiple integrals in option pricing, In: M. D. Todorov (Ed.) Application of Mathematics in Technical and Natural Sciences, 10th International Conference AMiTaNS'18, June 20-25 2018, Albena, Bulgaria, AIP Conference Proceedings, 2025, 110007 (2018)* [SJR (Scopus) 0.165] [3] *Todorov, V., Dimov, I., Dimitrov, Y., Ostromsky, T., Georgieva, R., A comparison of quasi-Monte Carlo methods based on Faure and Sobol sequences for multidimensional integrals in air pollution modeling, AIP Conference Proceedings 2164, 030002 (2019), 11-th International conference AMiTaNS'19, Albena, Bulgaria, June 20-25, 2019* [SJR (Scopus) 0.19] [4] *Todorov, V., Ikonomov, N., Apostolov, S., Dimov, I., Georgieva, R., Dimitrov, Y., An improved “walk on equations” Monte Carlo algorithm for linear algebraic systems, Recent Advances in Computational Optimization, pp. 215-236, Springer, Cham, 2020* [SJR (Scopus) 0.18] [5] *Todorov, V., Dimitrov, Y., Dimov, I., Second Order Shifted Approximations for the First Derivative. In: Dimov I., Fidanova S. (eds) Advances in High Performance Computing. HPC 2019. Studies in Computational Intelligence, vol 902. Springer, Cham* [SJR (Scopus) 0.249] [6] *Apostolov, S., Dimitrov, Dimitrov, Y., Todorov, V., Constructions of Second Order Approximations of the Caputo Fractional Derivative, 13th International Conference, LSSC 2021, Lecture Notes in Computer Science, accepted for publication* [SJR (Scopus):0.215] [1] *Dimitrov, Y., Edgar, G., Solutions of self-differential functional equations, Real Analysis Exchange 32, (2007) pp. 29-54* [2] *Dimitrov, Y., Edgar, G., Eigenvalues of a self-differential operator, International Journal of Pure and Applied Mathematics 52, (2009) pp. 87-115* [3] *Dimitrov, Y., Giovine, C., Mango, G., Lauria, M., A combinatorial model for self-organizing networks, IEEE International Parallel and Distributed Processing Symposium, Long Beach, CA (2007)*		

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	Quadrature Formulas andNumerical Solutions of Ordinary DifferentialEquations. Annals of Computer Science and Information Systems, 23 (2020) [14] *Dimitrov, Y.,Approximations of the fractional integral and numerical solutions of fractional integral equations. Communications on Applied Mathematics and Computation 3, 545–569 (2021)*		
	8. Публикувана глава от книга или колективна монография	15	
	9. Изобретение, патент или полезен модел, за което е издаден защитен документ по надлежния ред	25	
	10. Публикувана заявка за патент или полезен модел	15	
Д	11. Цитирания в научни издания, монографии, колективни томове и патенти, реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и Scopus)*	2 1 в други# публ.	**348** $40.2.4 = 320$ $7.1.4 = 28$
	Статията *Y. Dimitrov, Numerical approximations for fractional differential equations, Journal of Fractional Calculus and Applications 5(3S), (2014) pp. 1-45* е цитирана в [1] *CC Ji, ZZ Sun, A high-order compact finite difference scheme for the fractional sub-diffusion equation, Journal of Scientific Computing 64(3), 959-985 (2015) [IF 1.899]* [2] *GH Gao, HW Sun, ZZ Sun, Stability and convergence of finite difference schemes for a class of time-fractional sub-diffusion equations based on certain superconvergence, Journal of Computational Physics 280, 510-528 (2015) [IF 2.744]* [3] *C Ji, Z Sun, The high-order compact numerical algorithms for the two-dimensional fractional sub-diffusion equation, Applied Mathematics and Computation 269, 775-791 (2015) [IF 1.738]* [4] *G Gao, H Sun, Z Sun, Some high-order difference schemes for the distributed-order differential equations, Journal of Computational Physics 298, 337-359 (2015) [IF 2.744]* [5] *NJ Ford, K Pal, Y Yan, An algorithm for the numerical solution of two-sided space-fractional partial differential equations, Computational Methods in Appl Mathematics 15(4), 497–514 (2015) [IF 1.09]* [6] *H Ding, C Li, High-order algorithms for Riesz derivative and their applications (III), Fractional Calculus and Applied Analysis 19(1), 19-55 (2016) [IF 2.034]* [7] *H Sun, Z Sun, G Gao, Some high order difference schemes for the space and time fractional Bloch-*		

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● Q1, Q2, Q3 и Q4 обозначават четирите квартила (четвъртини), в които Journal Citation Reports (JCR) на Web of Science групира научните списания с импакт-фактор (IF) във всяка научна област. При отчитане на публикация в списание, което се появява в повече от една научна област в базата данни Web of Science, се използва най-високият квартил за съответното списание за годината на публикуване. Ако за дадена публикация в годината на публикуване не е наличен квартил за списанието, се използва наличният квартил за най-близката до нея година.

● Scimago Journal Rank (SJR) обозначава метриката на научните издания, реферирани в Scopus.

● При отчитане на публикации с повече от 30 (тридесет) съавтори кандида-тът трябва да има доказан съществен принос. Съществен принос в дадена научна публикация се доказва по поне един от следните начини: (1) кандидатът е първи в списъка на съавторите, (2) кандидатът е посочен в публикацията като автор за кореспонденция, (3) кандидатът представи писмо от автора за кореспонденция на статията или от публично обявения ръководител на научния колектив, подготвил публикацията, в което се удостоверява конкретният съществен принос на кандидата в тази публикация. Наличието на писма, удостоверяващи съществен принос в статии с повече от тридесет съавтори, се проверява в процедурата по проверка на допустимостта на кандидатите. Съответствието между съдържанието на писмото и съдържанието на съответната публикация се удостоверява в писмен вид в рецензиите и становищата на членовете на научното жури.

✓ Само за ПН 4.5 и ПН 4.6 се въвеждат следните допълнителни коефициенти за умножение на точките при отчитане на съответния показател:
За показатели В4 и Г7 – коефициент 3.
За показател Д11 – коефициент 4.