Fişa de verificare a îndeplinirii standardelor minimale, pentru domeniul Matematică

1. Scorul de referinţă.

s = factorul de impact pe anul 2012, din JCR2013

n = numărul de autori ai articolului

r = X dacă articolul a fost publicat in ultimii 7 ani

S-au luat în considerare doar revistele cu s > 0.5.

Nr.	Referinţa bibliografică	r	s	n	s/n
1	**D. Roşca,** *Locally supported rational spline wavelets on the sphere,* Mathematics of Computation, vol. 74, no. 252 (2005), 1803 -1829		1,366	1	1,366
2	**D. Roşca,** J. Prestin, *On some cubature formulas on the sphere*, Journal of Approximation Theory 142 (2006), 1-19.		0,755	2	0,378
3	**D. Roşca,** *Piecewise constant wavelets defined on closed surfaces*, Journal of Computational Analysis and Applications vol. 8, no. 2 (2006), 121-132.		0,502	1	0,251
4	**D. Roşca,** *Fourier series with linear splines on an interval,* Results in Mathematics vol. 49 (2006), 171-184.		0,508	1	0,508
5	**D. Roşca,** *Wavelet bases on the sphere obtained by radial projections*, Journal of Fourier Analysis and Applications vol. 13 no. 4 (2007), 421-434.	X	1,079	1	1,079
6	**D. Roşca**, *Quadrature formulas with equally distributed points on latitudinal points on the sphere*, Electronic Transactions on Numerical Analysis, vol. 35 (2009), 148-163.	X	1,261	1	1,261
7	**D. Roşca**, J-P. Antoine, *Locally supported orthogonal wavelets on the sphere via stereographic projection*, Mathematical Problems in Engineering, vol. 2009 (2009), paper ID: 124904, 1-14.	X	1,383	2	0,692
8	**D. Roşca,** *On a norm equivalence in L2(S2),* Results in Mathematics, vol. 53, no. 3-4 (2009), 399-405.	X	0,508	1	0,508
9	J-P. Antoine, **D. Roşca,** P. Vandergheynst, *Wavelet transform on manifolds: old and new approaches,* Applied and Computational Harmonic Analysis, vol. 28, no. 2 (2010), 189-202.	X	2,485	3	0,828
10	G. Plonka, **D. Roşca,** *Easy path wavelet transform on triangulations of the sphere,* Mathematical Geosciences, vol. 42, no. 7 (2010), 839-855.	X	1,440	2	0,720
11	**D. Roşca,** *New uniform grids on a sphere,* Astronomy and Astrophysics, vol. 520, A63 (2010).	X	5,084	1	5,084
12	G. Plonka, S. Tenorth, **D. Roşca,** *A new hybrid method for image compression using the Easy Path Wavelet Transform,* IEEE Transactions on Image Processing, vol. 20, no. 2 (2011), 372-381.	X	3,199	3	1,066
13	**D. Roşca,** *Wavelet analysis on some surfaces of revolution via area preserving projection,*Applied and Computational Harmonic Analysis, vol. 30, no. 2 (2011), 272-282.	X	2,485	1	2,485
14	**D. Roşca,** *Uniform and refinable grids on elliptic domains and on some surfaces of revolution,* Applied Mathematics and Computation, vol. 217, no. 19 (2011), 7812-7816.	X	1,349	1	1,349
15	**D. Roşca,** G. Plonka, *Uniform spherical grids via equal area*	X	0,989	2	0,495

	projection from the cube to the sphere, Journal of Computational and Applied Mathematics, vol. 236, no. 6 (2011), 1033-1041.				
16	V. Pop, **D. Roşca,** *Generalized piecewise constant orthogonal wavelet bases on 2D-domains*, Applicable Analysis, vol. 90, no 3-4 (2011), 715-723.	X	0,710	2	0,355
17	**D. Roşca,** G. Plonka, *An area preserving projection from the regular octahedron to the sphere,* Results in Mathematics vol. 63, no. 2 (2012), 429-444.	X	0,508	2	0,254
18	**D. Roşca,** M. De Graef, *Area-preserving projections from hexagonal and triangular domains to the sphere and applications to electron back-scatter diffraction pattern simulations,* Modelling and Simulation in Materials Science and Engineering, vol. 21 (2013), ID:055021.	X	1,932	2	0,966
	Total:				I = **19,645**
					I recent = **17,142**

Standarde minimale: **I=5, Irecent =2.5**

2. Lista citărilor lucrărilor candidatului

S-au luat în considerare articolele publicate în reviste ştiinţifice care au un factor de impact mai mare sau egal cu 0.5 în JCR2013, care citează articole ştiinţifice publicate de candidat şi care nu au ca şi autor sau coautor candidatul.

Nr.	**Referinţa bibliografică a publicaţiei care citează**	**s**
D. Roşca, Haar wavelets on spherical triangulations, in N. Dogson, M. Floater, M. Sabin (eds.) Advances in Multiresolution for Geometric Modelling, Springer Verlag 2005, pp. 405-417.		
1.	C. Lessig, E. Fiume, SOHO: *Orthogonal and symmetric Haar wavelets on the sphere, ACM Transactions on Graphics,* vol. 27 (1), 2008, article 4.	3.361
D. Roşca, *Locally supported rational spline wavelets on the sphere*, Math. Comput., vol. 74, nr. 252 (2005), 1803-1829		
2.	J.P. Antoine, P. Vandergheynst, *Wavelets on the two-sphere and other conic sections*, Journal of Fourier Analysis and Applications, vol. 13, no. 4 (2007), 369-386.	1,079
3.	M. Plu, P. Arbogast, A. Joly, *A wavelet representation of synoptic-scale coherent structures*, Journal of Atmospheric Sciences, vol. 65, no. 10 (2008), 3116-3138.	2,672
4.	O. Pannekoucke, *Hetereogeneous correlations modelling based on the wavelet diagonal assumption and on the diffusion operator*, Monthly Weather Review vol. 137, no. 9 (2009), 2995-3012.	2,758
D. Roşca, *Piecewise constant wavelets defined on closed surfaces*, J. Comput. Anal. Appl., vol. 8, no. 2 (2006), 121-132.		
5.	J.P. Antoine, P. Vandergheynst, *Wavelets on the two-sphere and other conic sections*, Journal of Fourier Analysis and Applications, vol. 13, no. 4 (2007), 369-386.	1,079
J. Prestin, D. Roşca, *On some cubature formula on the sphere*, J. Approx. Theory, vol. 142 (2006) ,1-19.		
6.	L. Baratchart, A. Martinez-Finkelstein, D. Jimenez, D.S. Lubinsky, H.N. Mhaskar, I. Pritsker, M. Putinar, N. Stylianopoulos, V. Totik, P. Varju, Y. Xu, *Open problems in constructive function theory*, Electronic Transactions	1,261

	on Numerical Analysis, vol. 25 (2006), pp. 511-525.	
7.	W. zu Castell, N. Lain-Fernandez, Y. Xu, *Polynomial interpolation on the unit sphere II*, Advances in Computational Mathematics, vol. 26, no. 1-3 (2007), 155-171.	1,468
D. Roşca, *Optimal Haar wavelets on spherical triangulations, Pure Math. Appl. vol 15, no. 4 (2006), 429–438.*		
8.	*J. Krommweh, An orthonormal basis of directional Haar wavelets on triangles,* Results in Mathematics, vol. 53, no. 3-4, 2009, pp. 323-331.	0,508
J-P. Antoine, D. Roşca, *The wavelet transform on the two-sphere and related manifolds - A Review*, Optical and Digital Image Processing, Proc. SPIE, vol. 7000 (2008) 70000B-1-15.		
9.	A. Hanyga, M. Seredynska, *Anisotropy in high-resolution diffusion-weighted MRI and anomalous diffusion*, Journal of Magnetic Resonance, vol. 220 (2012), 85-93.	2,300
D. Roşca, *Wavelet bases on the sphere obtained by radial projection*, J. Fourier Anal. Appl., vol. 13, no. 3 (2007), 421-434.		
10.	J.P. Antoine, P. Vandergheynst, *Wavelets on the two-sphere and other conic sections*, Journal of Fourier Analysis and Applications, vol. 13, no. 4 (2007), 369-386.	1,079
11.	H. Fuhr, *Painless Gabor expansions on homogeneous manifolds*, Applied and Computational Harmonic Analysis, vol. 26, no. 2 (2009), 200-211.	2,485
12.	XH. Lan, D. Marinucci, *On the dependence structure of wavelet coefficients for spherical random fields*, Stochastic Processes and their Applications, vol. 119, no. 10 (2009), 3749-3766.	0,953
13.	S. Scodeller, O. Rudjord, F.K. Hansen, D. Marinucci, D. Geller, A. Mayeli, *Introducing Mexican needlets for CMB analysis: Issues for practical applications and comparison with standard needlets*, The Astrophysical Journal, 733:121, 18pp, 2011.	6,733
14.	L. Jacques, L. Duval, C. Chaux, G. Peyré, *A Panorama on Multiscale Geometric Representations, Intertwining Spatial, Directional and Frequency Selectivity*, Signal Processing, vol. 91, no. 12 (2011), 2699-2730.	1,851
15.	C. Durastanti, D. Marinucci, G. Peccati, *Normal Approximations for Wavelet Coefficients on Spherical Poisson Fields,* Journal of Mathematical Analysis and Applications, http://dx.doi.org/10.1016/j.jmaa.2013.06.028.	1,050
D. Roşca, *Piecewise constant wavelets on triangulations, obtained by 1-3 splitting*, Int. J. Wavelets, Multires. and Inform. Process., vol. 6, no. 2 (2008), 209-222.		
16.	J. Krommweh, G. Plonka, *Directional Haar wavelet frames on triangles*, Applied and Computational Harmonic Analysis, vol. 27, no. 2 (2009), 215-234.	2,485
D. Roşca, J-P. Antoine, *Locally supported orthogonal wavelets on the sphere via stereographic projection*, Math. Probl. Eng., vol. 2009, 2009, paper ID: 124904, pp. 1-14.		
17.	T. Hou, H. Qin, *Continuous and discrete Mexican wavelet transforms on manifolds*, Graphical Models, vol. 74, no. 4 (2012), 221-232.	0,697
18.	DT. Dul, P. Korecki, *Wavelet analysis of white beam x-ray fluorescence holograms: determination of lattice sites and imaging of local atomic structure*, New Journal of Physics, vol. 14, 113044, 2012, 23pp.	4,063
J.P. Antoine, D. Roşca, P. Vandergheynst, *Wavelet transform on manifolds: old and new approaches*, Appl. Comput. Harm. Anal., vol. 28, no. 2 (2010), 189-202.		
19.	M. Calixto, E. Perez-Romero, *Extended MacMahon-Schwinger's Master Theorem and Conformal Wavelets in Complex Minkowski Space*, Appl. Comput. Harmon. Anal., vol. 31, no. 2 (2011), 143-168.	2,485
20.	L. Jacques, L. Duval, C. Chaux, G. Peyré, *A Panorama on Multiscale Geometric Representations, Intertwining Spatial, Directional and Frequency Selectivity*, Signal Processing, vol. 91, no. 12 (2011), 2699-2730.	1,851
21.	R.M. Rustamov, *Multiscale Biharmonic Kernels*, Computer Graphics	1,638

	Forum, vol. 50, no. 5 (2011), 1396-1602.	
22.	T. Hou, H. Qin, *Continuous and discrete Mexican wavelet transforms on manifolds*, Graphical Models, vol. 74, no. 4 (2012), 221-232.	0,697
D. Roşca, *New uniform grids on the sphere*, Astronomy & Astrophysics, vol. 520, A63, 2010.		
23.	R.A. Shah, P. Guyot-Sionnest, S.K. Gray, *Orientation interpolation of the optical spectra of nonspherical nanoparticles*, The Journal of Physical Chemistry C, vol. 116, no. 23 (2012), 12712-12724.	4,814
G. Plonka, D. Roşca, *Easy path wavelet transform on triangulations of the sphere,* Mathematical Geosciences, vol. 42, no. 7 (2010), 839-855.		
24.	J. Ma, G. Plonka, H. Chauris, *A new sparse representation of seismic data using adaptive easy path wavelet transform,* IEEE Geoscience and Remote Sensing Letters 7, 3 (2010), 540-544.	1,823
25	G. Plonka, D. Heinen, *Wavelet Shrinkage on Paths for Denoising of Scattered Data,* Results in Mathematics 62, 3-4 (2012), 337-354.	0,508
G. Plonka, S. Tenorth, D. Roşca, *A new hybrid method for image compression using the Easy Path Wavelet Transform,* IEEE Transactions on Image Processing, vol. 20, no. 2 (2011), 372-381.		
26.	A. Maleki, B. Rajaei, H. Pourreza, *Rate-Distortion Analysis of Directional Wavelets*, IEEE Transactions on Image Processing, vol. 21, no. 2 (2012), 588-600.	3,199
27.	H. Dadkhahi, A. Gotchev, K. Egiazarian, *Inverse polynomial reconstruction method in DCT domain*, EURASIP Journal on Advances in Signal Processing, vol. 2012 (2012), paper 133.	0,807
28.	W.Y. Liu, J.G.Han, *The optimal Mexican hat wavelet filter de-noising method based on cross-validation method*, Neurocomputing, vol. 108 (2013), 31-35.	1,634
T. Peter, G. Plonka, D. Roşca, *Representation of sparse Legendre expansions*, J. Symb. Comput., vol 50 (2013), 159-169.		
29.	D Potts, M Tasche, *Sparse polynomial interpolation in Chebyshev bases,* Linear Algebra and its Applications, 2013, http://dx.doi.org/10.1016/j.laa.2013.02.006.	0.968
30.	T. Peter, G. Plonka, *A generalized Prony method for reconstruction of sparse sums of eigenfunctions of linear operators,* Inverse Problems, vol. 29 (2013), art. 025001.	1.896

Standarde minimale: **C=12**

Cluj-Napoca, 26 august 2013

Candidat,
Daniela Roșca

Șef de departament
Prof. dr. Mircea Ivan

Decan,
Prof. dr. ing. Liviu Miclea