

A list of publications by A. B. Skopenkov (excluding abstracts).

1. Main research papers.

- [Sk95] A. Skopenkov, *A description of continua basically embeddable in \mathbb{R}^2* , Topol. Appl. **65** (1995), 29–48.
- [Sk97] A. B. Skopenkov, *On the deleted product criterion for embeddability of manifolds in \mathbb{R}^m* , Comment. Math. Helv. **72** (1997), 543–555.
- [Sk98] A. B. Skopenkov, *On the deleted product criterion for embeddability in \mathbb{R}^m* , Proc. Amer. Math. Soc. **126:8** (1998), 2467–2476.
- [Sk00] A. Skopenkov, *On the generalized Massey–Rolfsen invariant for link maps*, Fund. Math. **165** (2000), 1–15.
- [Sk02] A. Skopenkov, *On the Haefliger–Hirsch–Wu invariants for embeddings and immersions*, Comment. Math. Helv. **77** (2002), 78–124.
- [Sk07] A. Skopenkov, *A new invariant and parametric connected sum of embeddings*, Fund. Math. **197** (2007), 253–269; arxiv:math/0509621.
- [Sk08] A. Skopenkov, *Embedding and knotting of manifolds in Euclidean spaces*, in: *Surveys in Contemporary Mathematics*, Ed. N. Young and Y. Choi, London Math. Soc. Lect. Notes **347** (2008), 248–342; arxiv:math/0604045.
- [Sk08'] A. Skopenkov, *A classification of smooth embeddings of 3-manifolds in 6-space*, Math. Zeitschrift **260:3** (2008), 647–672; arxiv:math/0603429.
- [Sk10] A. Skopenkov, *A classification of smooth embeddings of 4-manifolds in 7-space, I*, Topol. Appl. **157** (2010), 2094–2110; arxiv:math/0512594.
- [Sk10'] A. Skopenkov, *Embeddings of k -connected n -manifolds into R^{2n-k-1}* , Proc. Amer. Math. Soc. **138** (2010), 3377–3389; arxiv:math/0812.0263.
- [RSS96] D. Repovš, A. B. Skopenkov and E. V. Ščepin, *C^1 -homogeneous compacta in \mathbb{R}^n are C^1 -submanifolds of \mathbb{R}^n* , Proc. Amer. Math. Soc. **124:4** (1996), 1219–1226.
- [RS98] D. Repovš and A. B. Skopenkov, *A deleted product criterion for approximability of a map by embeddings*, Topol. Appl. **87** (1998), 1–19.
- [SSS98] J. Segal, A. Skopenkov and S. Spiez, *Embeddings of polyhedra in \mathbb{R}^m and the deleted product obstruction*, Topol. Appl. **85** (1998), 225–234.
- [RS99] D. Repovš and A. Skopenkov, *New results on embeddings of polyhedra and manifolds into Euclidean spaces*, Uspekhi Mat. Nauk **54:6** (1999), 61–109 (in Russian); *English transl.*, Russ. Math. Surv., 1149–1196.
- [CS11] D. Crowley and A. Skopenkov, *A classification of smooth embeddings of 4-manifolds in 7-space, II*, Internat. J. Math. **22:6** (2011), 731–757; arxiv:math/0808.1795.

2. Other research papers.

- [RSS93] D. Repovš, A. B. Skopenkov and E. V. Ščepin, *A characterization of C^1 -homogeneous subsets of the plane*, Boll. Unione Mat. Ital. **7-A** (1993), 437–444.
- [Sk94] A. Skopenkov, *A geometric proof of the Newirth theorem on thickenings of 2-polyhedra*, Mat. Zametki **56:2** (1994), 94–98 (in Russian); English transl.: Math. Notes, 58:5 (1995), 1244–1247.
- [RSS95] D. Repovš, A. B. Skopenkov and E. V. Ščepin, *On uncountable collections of continua and their span*, Colloq. Math. **69:2** (1995), 289–296.
- [RSS95'] D. Repovš, A. B. Skopenkov and E. V. Ščepin, *On embeddability of $X \times I$ into Euclidean space*, Houston J. Math **21** (1995), 199–204.
- [RS95] D. Repovš and A. B. Skopenkov, *On homogeneous compacta in Euclidean space and the classical Hilbert–Smith conjecture*, in: Proc. of the Second Asian Math. Conf. (ed. S. Tangmanee, E. Schulz) (1995), 222–226.

- [RS96] D. Repovš and A. B. Skopenkov, *Embeddability and isotopy of polyhedra in Euclidean spaces*, Trudy Math. Inst. Ross. Akad. Nauk **212** (1996); Proc. of the Steklov Inst. Math. **212** (1996), 173–188.
- [RSS97] D. Repovš, A. B. Skopenkov and E. V. Ščepin, *Group actions on manifolds and smooth ambient homogeneity*, Jour. of Math. Sci. (New York) **83:4** (1997), 546–549.
- [CRS98] A. Cavicchioli, D. Repovš and A. B. Skopenkov, *Open problems on graphs, arising from geometric topology*, Topol. Appl. **84** (1998), 207–226.
- [RS99'] D. Repovš and A. B. Skopenkov, *Obstructions for Seifert fibrations and classification of Hamiltonian systems (in Russian)*, Uspehi Mat. Nauk **54:3** (1999); English transl., Russ. Math. Surv. **54:3** (1999).
- [RS99''] D. Repovš and A. B. Skopenkov, *Borromean rings and embedding obstructions (in Russian)*, Trudy Math. Inst. Ross. Akad. Nauk **225** (1999), 331–338; English transl., Proc. of the Steklov Inst. Math. **225** (1999), 314–321.
- [BRS99] D. Repovš, N. Brodsky and A. B. Skopenkov, *A classification of 3-thickenings of 2-polyhedra*, Topol. Appl. **94** (1999), 307–314.
- [CRS00] A. Cavicchioli, D. Repovš and A. B. Skopenkov, *An extension of the Bolsinov–Fomenko theorem on classification of Hamiltonian systems*, Rocky Mount. J. Math. **30:2** (2000), 447–476.
- [RS00] D. Repovš and A. Skopenkov, *Cell-like resolutions of polyhedra by special ones*, Colloq. Math. **86:2** (2000), 231–237.
- [RS01] D. Repovš and A. Skopenkov, *On contractible n -dimensional compacta, non-embeddable into \mathbb{R}^{2n}* , Proc. Amer. Math. Soc. **129** (2001), 627–628.
- [ARS01] P. Akhmetiev, D. Repovš and A. Skopenkov, *Embedding products of low-dimensional manifolds in \mathbb{R}^m* , Topol. Appl. **113** (2001), 7–12; (North-Holland, Elsevier).
- [ORS01] A. Onischenko, D. Repovš and A. Skopenkov, *Resolutions of 2-polyhedra by fake surfaces and embeddings into \mathbb{R}^4* , Contemporary Math. **288** (2001), 396–400.
- [ARS02] P. Akhmetiev, D. Repovš and A. Skopenkov, *Obstructions to approximating maps of n -manifolds into \mathbb{R}^{2n} by embeddings*, Topol. Appl. **123** (2002), 3–14.
- [RS02] D. Repovš and A. Skopenkov, *On projected embeddings and desuspension of the α -invariant*, Topol. Appl. **124** (2002), 69–75; (North-Holland, Elsevier).
- [MRS03] J. Malešič, D. Repovš and A. Skopenkov, *On incompleteness of the deleted product obstruction for embeddings*, Bol. Soc. Mat. Mexicana (3) **9** (2003), 165–170.
- [MS04] J. Mukai and A. Skopenkov, *A direct summand in a homotopy group of the mod 2 Moore space*, Kyushu J. Math. **58:1** (2004), 203–209.
- [CRS04] M. Cencelj, D. Repovš and A. Skopenkov, *On the Browder–Levine–Novikov embedding theorems*, Trudy MIRAN **247** (2004), 280–290.
- [RSS05] D. Repovš, A. Skopenkov and F. Spaggiari, *An infinite sequence of non-realizable weavings*, Discr. Appl. Math. **150:1-3** (2005), 256–260.
- [GS06] D. Goncalves and A. Skopenkov, *Embeddings of homology equivalent manifolds with boundary*, Topol. Appl. **153:12** (2006), 2026–2034; <http://arxiv.org/abs/1207.1326>.
- [CRS07] M. Cencelj, D. Repovš and A. Skopenkov, *Codimension two PL embeddings of spheres with nonstandard regular neighborhoods*, Chinese Annals of Mathematics, Series B **28:5** (2007), 603–608; <http://arxiv.org/abs/math.GT/0608653>.
- [Sk07'] A. Skopenkov, *A characterization of submanifolds by a homogeneity condition*, Topol. Appl. **154** (2007), 1894–1897; <http://arxiv.org/abs/math.GT/0606470>.

Pedagogical papers and books.

- [VSS95] N. Vassiliev, V. Senderov and A. Skopenkov, *Around the Markov equation*, Kvant (1995), N6, 36–38.
- [Sk96] A. Skopenkov, *Borsuk's problem*, Quantum **7:1** (1996), 16–21, 63.
- [KS97] V. Kurlin and A. Skopenkov, *Basic embeddings of graphs into the plane (in Russian)*, Math. Obrazovanie **3** (1997), 105–113.
- [KS98] V. Kurlin and A. Skopenkov, *Basic embeddings of graphs into the plane*, in: 9-th summer conference of Tournament of Towns, MCCME (1998), 34–44, 106–113. (in Russian)
- [Sk99] A. Skopenkov, *n-dimensional cube, polynomials and solution of the Borsuk problem (in Russian)*, Mat. Prosveschenie **3** (1999).
- [DSS99] V. N. Dubrovskiy, A. B. Skopenkov and A. V. Spivak, *Mathematics (materials of the 1997 summer school)*, SUNC MGU (1999).
- [KS99] P. Kozhevnikov and A. Skopenkov, *Narrow trees in the plane (in Russian)*, Mat. Obrazovanie **5** (1999), 126–131.
- [RS00] D. Repovš and A. Skopenkov, *Obstruction theory for beginners (in Russian)*, Mat. Prosveschenie **4** (2000).
- [ST00] A. Skopenkov and A. Talambutsa, *Packing of regular polyhedra*, Math. Education **3(14)** (2000), 52–53.
- [RS02] D. Repovš and A. Skopenkov, *Characteristic classes for beginners (in Russian)*, Mat. Prosveschenie **6** (2002), 60–77.
- [ST04] A. Skopenkov and A. Talambutsa, *Extremal dispositions of regular polyhedra*, Mat. Prosveschenie **8** (2004), 53–65.
- [Sk05] A. Skopenkov, *On the Kuratowski graph planarity criterion*, Mat. Prosveschenie, 9 (2005), 116–128. <http://arxiv.org/abs/0802.3820>
- [KS06] A. Kaibkhanov and A. Skopenkov, *A short proof of the transcendence of the Mahler number* Mat. Prosveschenie, 10 (2006), 176–184. <http://arxiv.org/abs/1204.5045>
- [Sk06] A. Skopenkov, *Olympiads and mathematics (in Russian)*, Mat. Prosveschenie, 10 (2006), 57–63. <http://www.mccme.ru/free-books/matprosb.html>. Abridged English translation (abstract of a talk joint with N.N. Konstantinov): <http://www.mccme.ru/circles/oim/oimpeng.pdf>
- [OS07] A. Oshemkov and A. Skopenkov, *Olympiads in geometry and topology (in Russian)*, Mat. Prosveschenie, 11 (2007), 131–140. <http://www.mccme.ru/free-books/matpros.html>
- [ST07] A. Skopenkov and A. Telishev, *Once again on the Kuratowski graph planarity criterion*, Mat. Prosveschenie, 11 (2007), 159–160. <http://arxiv.org/abs/0802.3820>
- [Sk08] A. Skopenkov, *Algebraic Topology From Geometric Viewpoint*, in Russian, MCCME, Moscow, to appear. <http://arxiv.org/abs/0808.1395>. Update: <http://www.mccme.ru/circles/oim/obstruct.pdf>
- [Sk08] A. Skopenkov, *Some reflections on research problems for high-school students*, Mat. Prosveschenie, 12 (2008), 23–32.
- [KS08] P. Kozlov and A. Skopenkov, *A la recherche de l'algèbre perdue: du cote de chez Gauss*, Mat. Prosveschenie 12 (2008), 127–144. <http://arxiv.org/abs/0804.4357>
- [A08] I. Arzhantsev, V. Bogachev, A. Zaslavsky, V. Protasov, A. Raygorodsky, A. Skopenkov, *Students' mathematical olympiades and interdepartment seminar at Moscow State University*, Mat. Prosveschenie, 12 (2008), 205–222.
- [Z09] *Mathematics via problems*, editors: A. Zaslavsky, D. Permyakov, A. Skopenkov, M. Skopenkov and A. Shapovalov. Moscow, MCCME, 2009.

- [Sk09] A. Skopenkov, Basic Differential Geometry As a Sequence of Interesting Problems, in Russian, MCCME, Moscow, 2009. <http://arxiv.org/abs/0801.1568>
- [Sk09'] A. Skopenkov, Yet another proof from the Book: the Gauss theorem on regular polygons, <http://arxiv.org/abs/0908.2029>
- [Sk10] A. Skopenkov, Basic embeddings and Hilbert's 13th problem (in Russian), *Mat. Prosveschenie*, 14 (2010) 143–174, <http://arxiv.org/abs/1001.4011> Abridged English translation: <http://arxiv.org/abs/1003.1586>
- [A10] I. Arzhantsev, V. Bogachev, A. Zaslavsky, V. Protasov, A. Raygorodsky, A. Skopenkov, Students' mathematical olympiades at Moscow State University, *Mat. Prosveschenie*, 14 (2010), 225-234.
- [Sk11] A. Skopenkov, A simple proof of the Abel-Ruffini theorem, *Mat. Prosveschenie*, 15 (2011) 113-126, <http://arxiv.org/abs/1102.2100>.
- [SS11] A. Sgibnev and A. Skopenkov, On some high-school students conferences, *Matematika v shkole*, 2011, N 4, 44-45.
- [Sk12] A. Skopenkov, Ambient Homogeneity, MCCME, Moscow, 2012, <http://arxiv.org/abs/1003.5278>.
- [Sk12'] A. Skopenkov, Yet another proof from the book: Menger theorem, *Mat. Prosveschenie*, 16 (2012), 48-49.
- [A12] I. Arzhantsev, V. Bogachev, A. Garber, A. Zaslavsky, V. Protasov and A. Skopenkov, Students' mathematical olympiades at Moscow State University 2010-2011, *Mat. Prosveschenie*, 16 (2012), 214-227.
- [I13] M. Ilyinskiy, A. Kupavskiy, A. Raygorodskiy and A. Skopenkov, Discrete analysis for mathematician and programmers, *Mat. Prosveschenie*, 17 (2013).
- [Sk13] A. Skopenkov, A two-page disproof of the Borsuk partition conjecture, *Mat. Prosveschenie*, 17 (2013). <http://arxiv.org/abs/0712.4009>, v2
- [Sk] A. Skopenkov, Some more proofs from the Book: solvability and insolvability of equations in radicals, in Russian, submitted. <http://arxiv.org/abs/0804.4357> v2
- [Sk'] A. Skopenkov, Algorithms for recognition of the realizability of hypergraphs, in Russian, www.mccme.ru/circles/oim/algor.pdf