Aleksandr Mosenkov

Curriculum Vitae

Contact details

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Research interests

Formation and evolution of galaxies. Structure of galaxies, including 2D/3D fitting of surface brightness distribution and deep photometric and kinematic analysis of galaxy features. Surveys and catalogues of extragalactic objects. Scaling relations of galaxies. Dust in galaxies. Low-surface brightness Universe. Structure of the Galaxy including study of the bar shape. Polar-ring galaxies, low-surface brightness galaxies, superthin galaxies, active galactic nuclei, spiral structure. Robotic observations. Globular clusters.

Experience

2019–current time **Part-time Researcher**, *Ton Duc Thang University*, Ho Chi Minh City, Vietnam.

2019–current time **Unofficial Lecturer**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2017–current time **Senior Researcher**, *Pulkovo Observatory of Russian Academy of Sciences*, Saint Petersburg, Russia.

2015–2017 **Research Scientist**, *Astronomical Observatory*, Ghent University, Belgium.

2008–Present **Research Fellow**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2011–2015 **Research Scientist**, *Pulkovo Observatory of Russian Academy of Sciences*, Saint Petersburg, Russia.

Education

2011–2014 **Ph.D in physics and mathematics**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2013–2014 **Certificate of the BYUI Pathway program**, *Brigham Young University-Idaho*, Idaho, US.

2003–2008 **Astronomer (specialist level 5A in ISCED classification of UNESCO) with honours**, *Saint Petersburg State University*, Saint Petersburg, Russia.

Ph.D. Thesis

Title *Study of the Structure and Dynamics of Edge-on Galaxies*

Supervisors Professor Vladimir P. Reshetnikov & Dr. Natalja Ya. Sotnikova

Masters Thesis

Title *Structure of Edge-on Galaxies*

Supervisors Professor Vladimir P. Reshetnikov & Dr. Natalja Ya. Sotnikova

Honours, Awards & Prizes

2017 **Struve Award**, *Pulkovo Observatory of Russian Academy of Sciences, 1st place*, Saint Petersburg, Russia.

2013 **Struve Award**, *Pulkovo Observatory of Russian Academy of Sciences, 3d place*, Saint Petersburg, Russia.

2008 **Best Diploma Work**, *Saint Petersburg State University*, Saint Petersburg, Russia.

Obtained Fellowships

2018–2020 **RFBR-project "Investigation of the spiral structure of disc galaxies based on the multi-wavelength (UV-IR) observations"**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2018 **Short-term fellowship in the frame of the project "Russian Platform"**, *Ghent University*, Ghent, Belgium.

2015–2017 **Beneficiary of a postdoctoral grant from the Belgian Federal Science Policy Office**, *Ghent University*, Ghent, Belgium.

2014–2016 **RFBR-project "Study of the Vertical Structure of Disc Galaxies"**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2011–2013 **RFBR-project "Study of Characteristics of Different Galaxy Dark Halos"**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2009–2011 **RFBR-project "Study of Structure and Dynamics of Edge-on Spiral Galaxies"**, *Saint Petersburg State University*, Saint Petersburg, Russia.

Professional Associations

2018+ **RFBR project for young scientists**, *Co-P.I.*, P.I. S. Savchenko.

2017+ **HERON project**, *Co-investigator*, P.I. M. Rich.

2015+ **3D Extinction Map**, *Co-investigator*, P.I. G. Gontcharov.

2015+ **Deep Imaging of Edge-on Galaxies**, *Co-investigator*, P.I. N. Brosch.

2015-2017 **DustPedia**, *Co-investigator*, P.I. J. Davies.

2015-2017 **Disc Galaxies with Optical Warps**, *Co-investigator*, P.I. V.P. Reshetnikov.

2015-2017 **Herschel Observations of Edge-on Spirals**, *Co-investigator*, P.I. M. Baes.

2012-2014 **Edge-on Galaxies in the Sloan Digital Sky Survey**, *Co-investigator*, P.I. D. Bizyaev.

Technical Experience

Languages	Python, Fortran, C++, Julia, Unix shell scripts, HTML, LaTeX, Julia
Applications	Image Reduction and Analysis Facility IRAF, ESO-MIDAS, DS9, GAIA, Montage, OpenOffice and Microsoft Office software
Decomposition codes	Galfit, Imfit, BUDDA, SKIRT
Statistics	R
Engineering software	Mapple
Operating systems	Unix/Linux, Windows, MacOS

Teaching & Outreach

2019+ **Lecturer in Astronomy and Astrophysics**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2015 **Supervisor of the summer astronomical practice for an undergraduate student**, *Astronomical Observatory*, Ghent University, Belgium.

2012–2013 **Instructor of an undergraduate student during the summer astronomical practice**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2011+ **Astronomical software: Lectures for undergraduate students**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2012+ **Supervisor of undergraduate students**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2011+ **Lectures on modern issues in astronomy for undergraduate students**, *Saint Petersburg State University*, Saint Petersburg, Russia.

2011 **High-school teacher practice, mathematics**, *High-school # 564*, Saint Petersburg, Russia.

Conferences, Workshops & Colloquia

2019 **EWASS 2019**, *Lyon*, France, Poster (co-author): Photometry of the superthin edge-on galaxy FGC2441.

2019 **IAU Symposium 355**, *Tenerife*, Spain, Talk (co-author): Low-surface-brightness features in Hickson compact groups.

2019 **IAU Symposium 355**, *Tenerife*, Spain, Poster (co-auther): Deep imaging of edge-on disks.

2019 **Modern Problems of Extragalactic Astronomy**, *Puschino*, Russia, Talk (co-author): Investigation of the parameters of the spiral pattern on the basis of the imaging for disc galaxies.

2018 **Modern Stellar Astronomy**, *Moscow*, Russia, Interstellar polarization in the Local Bulb and Gould Belt from the GAIA DR2.

2018 **Modern Stellar Astronomy**, *Moscow*, Russia, Characteristics of the MW globular clusters from the comparison with theoretical isochrones.

2018 **Modern Stellar Astronomy**, *Moscow*, Russia, Reddening and extinction for the GAIA stars.

2018 **Modern Stellar Astronomy**, *Moscow*, Russia, The dust distribution in galaxies.

2018 **Pulkovo 2018 for young scientists**, *St. Petersburg*, Russia, The dust distribution in galaxies.

2018 **EWASS 2018**, *Liverpool*, UK, The interstellar extinction of the Gaia stars.

2018 **EWASS 2018**, *Liverpool*, UK, Faint extended structures near edge-on galaxies.

2018 **EWASS 2018**, *Liverpool*, UK, DECA: A new Python package for galaxy image decomposition.

2017 **Stars: From Collapse to Collapse**, *Nizhny Arkhyz*, Russia, 3D Reddening and Extinction Maps at the Beginning of the Gaia Era.

2016 **SKIRT days 2016**, *Ghent*, Belgium, Modeling the HEROES galaxies.

2016 **DustPedia meeting**, *Florence*, Italy, Photometric decomposition of the DustPedia sample.

2016 **IAU Symposium**, *Toledo*, Spain, Poster (co-author): Faint Extended Structures Near Galaxies: Preliminary Results from the Wise Observatory.

2016 **227th Meeting of AAS**, *Kissimmee, FL*, USA, Poster (co-author): Spectral Observations of Superthin Galaxies.

2014 **Journées 2014 "Systèmes de référence spatio-temporels"**, *Saint Petersburg*, Russia, Poster: Decomposition of Galaxy Images and Galaxy Rotation Curves.

2014 **Modern Problems of Extragalactic Astronomy**, *Puschino*, Russia, Talk (co-author): Mass Decomposition of Galaxy Images by Means of the New DECA-TK package.

2013 **Deconstructing Galaxies: Structure and Morphology in the Era of Large Surveys**, *Santiago*, Chile, Poster: Structural Properties of Edge-on Galaxies.

2013 **Science and Progress**, *Saint Petersburg*, Russia, Talk (co-author): Spiral Structure and Bulge/Disc Decomposition Analysis.

2013 **VAK-2013**, *Saint Petersburg*, Russia, Talk: Structural Characteristics of Edge-on Galaxies.

2013 **Modern Stellar Astronomy**, *Pulkovo, Saint Petersburg*, Russia, Talk: Structure and Dynamics of Edge-on Galaxies.

2013 **Modern Problems of Extragalactic Astronomy**, *Puschino*, Russia, Talk: Mass Decomposition of Galaxy Images by Means of the DECA Package.

2012 **The All-Russian Astrometry Conference "Pulkovo-2012"**, *Saint Petersburg*, Russia, Talk: Bar in Our Galaxy: Structure, Kinematics and Photometry.

2012 **Galaxies: Origin, Dynamics, Structure and Astrophysical Disks**, *Sochi*, Russia, Talk: Ambiguous Correlations Between Disc and Bulge Structural Parameters.

2012 **Modern Problems of Extragalactic Astronomy**, *Puschino*, Russia, Talk: Catalogue of Edge-on Galaxies in the Sloan Digital Sky Survey.

2012 **220th Meeting of AAS**, *Anchorage, TX*, USA, Poster (co-author): The Catalog of Edge-on Disk Galaxies Found in SDSS.

2011 **Fifty years of Cosmic Era: Real and Virtual Studies of the Sky**, *Yerevan*, Armenia, Talk: Photometry of Edge-on Spiral Galaxies: Structural Parameters and Scaling Relations of Bulges.

My publications

[1] Viviana Casasola, Simone Bianchi, Pieter De Vis, Laura Magrini, Edvige Corbelli, Christopher J. R. Clark, Jacopo Fritz, Angelos Nersesian, Sebastien Viaene, Maarten Baes, Letizia P. Cassara', Jon Davies, Ilse De Looze, Wouter Dobbels, Maud Galametz, Frederic Galliano, Anthony P. Jones, Suzanne C. Madden, Aleksandr V. Mosenkov, Ana Trcka, and Emmanuel Xilouris. The ISM scaling relations in DustPedia late-type galaxies: a benchmark study for the Local Universe. *arXiv e-prints*, page arXiv:1911.09187, Nov 2019.

[2] W. Dobbels, M. Baes, S. Viaene, S. Bianchi, J. I. Davies, V. Casasola, C. J. R. Clark, J. Fritz, M. Galametz, F. Galliano, A. Mosenkov, A. Nersesian, and A. Trčka. Predicting the global far-infrared SED of galaxies via machine learning techniques. *arXiv e-prints*, page arXiv:1910.06330, Oct 2019.

[3] S. Bianchi, V. Casasola, M. Baes, C. J. R. Clark, E. Corbelli, J. I. Davies, I. De Looze, P. De Vis, W. Dobbels, M. Galametz, F. Galliano, A. P. Jones, S. C. Madden, L. Magrini, A. Mosenkov, A. Nersesian, S. Viaene, E. M. Xilouris, and N. Ysard. Dust emissivity and absorption cross section in DustPedia late-type galaxies. *arXiv e-prints*, page arXiv:1909.12692, Sep 2019.

[4] C. J. R. Clark, P. De Vis, M. Baes, S. Bianchi, V. Casasola, L. P. Cassarà, J. I. Davies, W. Dobbels, S. Lianou, I. De Looze, R. Evans, M. Galametz, F. Galliano, A. P. Jones, S. C. Madden, A. V. Mosenkov, S. Verstocken, S. Viaene, E. M. Xilouris, and N. Ysard. The first maps of κ_d - the dust mass absorption coefficient - in nearby galaxies, with DustPedia. MNRAS, 489(4):5256–5283, Nov 2019.

[5] R. Michael Rich, Aleksandr Mosenkov, Henry Lee-Saunders, Andreas Koch, John Kormendy, Julia Kennefick, Noah Brosch, Laura Sales, James Bullock, Andreas Burkert, Michelle Collins, Michael Cooper, Michael Fusco, David Reitzel, David Thilker, Dave G. Milewski, Lydia Elias, M. L. Saade, and Laura De Groot. The haloes and environments of nearby galaxies (HERON) - I. Imaging, sample characteristics, and envelope diameters. MNRAS, 490(2):1539–1569, Dec 2019.

[6] S. Lianou, P. Barmby, A. A. Mosenkov, M. Lehnert, and O. Karczewski. Dust properties and star formation of approximately a thousand local galaxies. A&A, 631:A38, Nov 2019.

[7] J. I. Davies, A. Nersesian, M. Baes, S. Bianchi, V. Casasola, L. P. Cassarà, C. J. R. Clark, I. De Looze, P. De Vis, R. Evans, J. Fritz, M. Galametz, F. Galliano, A. P. Jones, S. Lianou, S. C. Madden, A. V. Mosenkov, M. W. L. Smith, S. Verstocken, S. Viaene, M. Vika, E. Xilouris, and N. Ysard. DustPedia: the relationships between stars, gas, and dust for galaxies residing in different environments. A&A, 626:A63, Jun 2019.

[8] A. Nersesian, E. M. Xilouris, S. Bianchi, F. Galliano, A. P. Jones, M. Baes, V. Casasola, L. P. Cassarà, C. J. R. Clark, J. I. Davies, M. Decleir, W. Dobbels, I. De Looze, P. De Vis, J. Fritz, M. Galametz, S. C. Madden, A. V. Mosenkov, A. Trčka, S. Verstocken, S. Viaene, and S. Lianou. Old and young stellar populations in DustPedia galaxies and their role in dust heating. A&A, 624:A80, Apr 2019.

[9] G. A. Gontcharov, A. V. Mosenkov, and M. Y. Khovritchev. Isochrone fitting of Galactic globular clusters - I. NGC 5904. MNRAS, 483:4949–4967, March 2019.

[10] V. P. Reshetnikov and A. V. Mosenkov. New candidates to polar-ring galaxies from the Sloan Digital Sky Survey. MNRAS, 483:1470–1480, February 2019.

[11] G. A. Gontcharov and A. V. Mosenkov. Interstellar polarization and extinction in the Local Bubble and the Gould Belt. MNRAS, 483:299–314, February 2019.

[12] P. De Vis, A. Jones, S. Viaene, V. Casasola, C. J. R. Clark, M. Baes, S. Bianchi, L. P. Cassara, J. I. Davies, I. De Looze, M. Galametz, F. Galliano, S. Lianou, S. Madden, A. Manilla-Robles, A. V. Mosenkov, A. Nersesian, S. Roychowdhury, E. M. Xilouris, and N. Ysard. A systematic metallicity study of DustPedia galaxies reveals evolution in the dust-to-metal ratios. A&A, 623:A5, March 2019.

[13] N. Brosch, S. Koriski, R. M. Rich, and A. V. Mosenkov. Hickson Compact Group 98: a complex merging group with a giant tidal tail and a humongous envelope. MNRAS, 482:2284–2293, January 2019.

[14] S. Bianchi, P. De Vis, S. Viaene, A. Nersesian, A. V. Mosenkov, E. M. Xilouris, M. Baes, V. Casasola, L. P. Cassarà, C. J. R. Clark, J. I. Davies, I. De Looze, W. Dobbels, M. Galametz, F. Galliano, A. P. Jones, S. Lianou, S. C. Madden, and A. Trčka. Fraction of bolometric luminosity absorbed by dust in DustPedia galaxies. A&A, 620:A112, December 2018.

[15] A. V. Mosenkov, M. Baes, S. Bianchi, V. Casasola, L. P. Cassarà, C. J. R. Clark, J. Davies, I. De Looze, P. De Vis, J. Fritz, M. Galametz, F. Galliano, A. P. Jones, S. Lianou, S. C. Madden, A. Nersesian, M. W. L. Smith, A. Trčka, S. Verstocken, S. Viaene, M. Vika, and E. Xilouris. Dust emission profiles of DustPedia galaxies. A&A, 622:A132, February 2019.

[16] G. A. Gontcharov and A. V. Mosenkov. Interstellar Polarization in the Local Bubble and the Gould Belt Based on Gaia DR2 Data. In *Modern Star Astronomy. Vol. 1, Astronomy-2018 (XIII Congress of the International Public Organization "Astronomical Society"). Conference Abstracts, Moscow: IZMIRAN, 2018. p. 121-125*, volume 1, pages 121–125, September 2018.

[17] G. A. Gontcharov and A. V. Mosenkov. Some Characteristics of the Galactic Globular Clusters Based on a Comparison with the Theoretical Isochrones. In *Modern Star Astronomy. Vol. 1, Astronomy-2018 (XIII Congress of the International Public Organization "Astronomical Society"). Conference Abstracts, Moscow: IZMIRAN, 2018. p. 116-120*, volume 1, pages 116–120, September 2018.

[18] A. V. Mosenkov, F. Allaert, M. Baes, S. Bianchi, P. Camps, C. J. R. Clark, M. Decleir, G. De Geyter, I. De Looze, J. Fritz, G. Gentile, B. W. Holwerda, T. M. Hughes, F. Lewis, M. W. L. Smith, J. Verstappen, S. Verstocken, and S. Viaene. HERschel Observations of Edge-on Spirals (HEROES). IV. Dust energy balance problem. A&A, 616:A120, August 2018.

[19] G. A. Gontcharov and A. V. Mosenkov. Verifying reddening and extinction for Gaia DR1 TGAS giants. MNRAS, 475:1121–1130, March 2018.

[20] G. A. Gontcharov and A. V. Mosenkov. VizieR Online Data Catalog: HIP and TGAS stars reddening and extinction (Gontcharov+ 2018). *VizieR Online Data Catalog*, 2354, January 2018.

[21] G. A. Gontcharov and A. V. Mosenkov. VizieR Online Data Catalog: TGAS MS giants reddening and extinction (Gontcharov+, 2018). *VizieR Online Data Catalog*, 747, January 2018.

[22] C. J. R. Clark, S. Verstocken, S. Bianchi, J. Fritz, S. Viaene, M. W. L. Smith, M. Baes, V. Casasola, L. P. Cassara, J. I. Davies, I. De Looze, P. De Vis, R. Evans, M. Galametz, A. P. Jones, S. Lianou, S. Madden, A. V. Mosenkov, and M. Xilouris. DustPedia: Multiwavelength photometry and imagery of 875 nearby galaxies in 42 ultraviolet-microwave bands. A&A, 609:A37, January 2018.

[23] G. A. Gontcharov and A. V. Mosenkov. Verifying reddening and extinction for Gaia DR1 TGAS main sequence stars. MNRAS, 472:3805–3820, December 2017.

[24] S. S. Savchenko, N. Y. Sotnikova, A. V. Mosenkov, V. P. Reshetnikov, and D. V. Bizyaev. Measuring the X-shaped structures in edge-on galaxies. MNRAS, 471:3261–3272, November 2017.

[25] G. A. Gontcharov and A. V. Mosenkov. On the discrepancy between asteroseismic and Gaia DR1 TGAS parallaxes. MNRAS, 470:L97–L101, September 2017.

[26] V. Casasola, L. P. Cassarà, S. Bianchi, S. Verstocken, E. Xilouris, L. Magrini, M. W. L. Smith, I. De Looze, M. Galametz, S. C. Madden, M. Baes, C. Clark, J. Davies, P. De Vis, R. Evans, J. Fritz, F. Galliano, A. P. Jones, A. V. Mosenkov, S. Viaene, and N. Ysard. Radial distribution of dust, stars, gas, and star-formation rate in DustPedia face-on galaxies. A&A, 605:A18, September 2017.

[27] C. J. R. Clark, S. Verstocken, S. Bianchi, J. Fritz, S. Viaene, M. W. L. Smith, M. Baes, V. Casasola, L. P. Cassara, J. I. Davies, I. de Looze, P. de Vis, R. Evans, M. Galametz, A. P. Jones, S. Lianou, S. Madden, A. V. Mosenkov, and M. Xilouris. VizieR Online Data Catalog: 875 nearby galaxies multiwavelength photometry (Clark+, 2018). *VizieR Online Data Catalog*, 360, August 2017.

[28] D. V. Bizyaev, S. J. Kautsch, A. V. Mosenkov, V. P. Reshetnikov, N. Y. Sotnikova, N. V. Yablokova, and R. W. Hillyer. VizieR Online Data Catalog: Structural parameters of true edge-on galaxies (Bizyaev+, 2014). *VizieR Online Data Catalog*, 178, June 2017.

[29] G. A. Gontcharov and A. V. Mosenkov. 3D Reddening and Extinction Maps at the Beginning of the Gaia Era. In Y. Y. Balega, D. O. Kudryavtsev, I. I. Romanyuk, and I. A. Yakunin, editors, *Stars: From Collapse to Collapse*, volume 510 of *Astronomical Society of the Pacific Conference Series*, page 75, June 2017.

[30] J. I. Davies, M. Baes, S. Bianchi, A. Jones, S. Madden, M. Xilouris, M. Bocchio, V. Casasola, L. Cassara, C. Clark, I. De Looze, R. Evans, J. Fritz, M. Galametz, F. Galliano, S. Lianou, A. V. Mosenkov, M. Smith, S. Verstocken, S. Viaene, M. Vika, G. Wagle, and N. Ysard. DustPedia: A Definitive Study of Cosmic Dust in the Local Universe. PASP, 129(4):044102, April 2017.

[31] D. V. Bizyaev, S. J. Kautsch, N. Y. Sotnikova, V. P. Reshetnikov, and A. V. Mosenkov. Very thin disc galaxies in the SDSS catalogue of edge-on galaxies. MNRAS, 465:3784–3792, March 2017.

[32] N. Brosch, A. Mosenkov, and R. M. Rich. Faint extended structures near galaxies: preliminary results from the Wise Observatory. In A. Gil de Paz, J. H. Knapen, and J. C. Lee, editors, *Formation and Evolution of Galaxy Outskirts*, volume 321 of *IAU Symposium*, pages 293–293, March 2017.

[33] V. P. Reshetnikov, A. V. Mosenkov, A. V. Moiseev, S. S. Kotov, and S. S. Savchenko. Galaxies with conspicuous optical warps. MNRAS, 461:4233–4245, October 2016.

[34] A. V. Mosenkov, F. Allaert, M. Baes, S. Bianchi, P. Camps, G. De Geyter, I. De Looze, J. Fritz, G. Gentile, T. M. Hughes, F. Lewis, J. Verstappen, S. Verstocken, and S. Viaene. HERschel Observations of Edge-on Spirals (HEROES). III. Dust energy balance study of IC 2531. A&A, 592:A71, July 2016.

[35] D. Bizyaev, S. J. Kautsch, N. Y. Sotnikova, A. Mosenkov, and V. P. Reshetnikov. Spectral Observations of Superthin Galaxies. In *American Astronomical Society Meeting Abstracts #227*, volume 227 of *American Astronomical Society Meeting Abstracts*, page 135.06, January 2016.

[36] V. P. Reshetnikov, S. S. Savchenko, A. V. Mosenkov, N. Y. Sotnikova, and D. V. Bizyaev. Polar-bulge galaxies. *Astronomy Letters*, 41:748–756, December 2015.

[37] A. V. Mosenkov, N. Y. Sotnikova, V. P. Reshetnikov, D. V. Bizyaev, and S. J. Kautsch. Does the stellar disc flattening depend on the galaxy type? MNRAS, 451:2376–2389, August 2015.

[38] A. V. Mosenkov and S. Savchenko. DECA: Decomposition of images of galaxies. Astrophysics Source Code Library, January 2015.

[39] A. V. Mosenkov, N. Y. Sotnikova, and V. P. Reshetnikov. Mirages in galaxy scaling relations. MNRAS, 441:1066–1085, June 2014.

[40] D. V. Bizyaev, S. J. Kautsch, A. V. Mosenkov, V. P. Reshetnikov, N. Y. Sotnikova, N. V. Yablokova, and R. W. Hillyer. The Catalog of Edge-on Disk Galaxies from SDSS. I. The Catalog and the Structural Parameters of Stellar Disks. ApJ, 787:24, May 2014.

[41] V. V. Bobylev, A. V. Mosenkov, A. T. Bajkova, and G. A. Gontcharov. Investigation of the Galactic bar based on photometry and stellar proper motions. *Astronomy Letters*, 40:86–94, February 2014.

[42] A. V. Mosenkov. Mass decomposition of galaxies using DECA software package. *Astrophysical Bulletin*, 69:99–112, January 2014.

[43] A. V. Mosenkov, N. Y. Sotnikova, and V. P. Reshetnikov. Photometry of edge-on spiral galaxies: structural parameters and scaling relations of bulges. In A. M. Mickaelian, O. Y. Malkov, and N. N. Samus, editors, *Fifty years of Cosmic Era: Real and Virtual Studies of the Sky. Conference of Young Scientists of CIS Countries*, pages 187–192, May 2012.

[44] S. J. Kautsch, D. Bizyaev, A. V. Mosenkov, N. Y. Sotnikova, V. P. Reshetnikov, R. W. Hillyer, and N. V. Yablokova. The Catalog of Edge-on Disk Galaxies Found in SDSS. In *American Astronomical Society Meeting Abstracts #220*, volume 220 of *American Astronomical Society Meeting Abstracts*, page 433.01, May 2012.

[45] N. Y. Sotnikova, V. P. Reshetnikov, and A. V. Mosenkov. Bulges and discs of spiral galaxies: edge-on perspective. *Astronomical and Astrophysical Transactions*, 27:325–334, 2012.

[46] N. Y. Sotnikova, V. P. Reshetnikov, and A. V. Mosenkov. Bulges and discs of spiral galaxies: edge-on perspective. *arXiv e-prints*, December 2010.

[47] A. V. Mosenkov, N. Y. Sotnikova, and V. P. Reshetnikov. 2MASS photometry of edge-on spiral galaxies - I. Sample and general results. MNRAS, 401:559–576, January 2010.