

# Гварамадзе Василий Васильевич



(09.07.1960 - 02.09.2021)

Василий Васильевич Гварамадзе - кандидат физико-математических наук с 1988 года (Вихревое и магнитное динамо в турбулентной среде), ведущий научный сотрудник отдела физики эмиссионных звезд и галактик ГАИШ МГУ, прославившийся в последние годы своими работами наш 6-м телескопе. Василий Васильевич также работал в должности ведущего инженера Отдела физики планет и малых тел солнечной системы ИКИ РАН.

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2 сентября 2021 года ушел из жизни Василий Васильевич Гварамадзе – ведущий научный сотрудник отдела физики эмиссионных звезд и галактик ГАИШ МГУ. Василий Васильевич пришел на работу в ГАИШ в конце 90х годов – пришел уже сложившимся ученым, астрофизиком-теоретиком, за плечами которого была отличная школа по физике плазмы Абастуманской обсерватории, зарубежные стажировки в Болгарии, Италии, Германии... Пришел теоретиком – и составил себе славу чисто наблюдательными работами. В 2000е годы Василий Васильевич нашел «свою» тему – работу с архивами наблюдений космических телескопов, которые заключают в себе ценнейшие данные в таком количестве, что команды этих телескопов просто не успевают все проанализировать. В архивах инфракрасных обзоров неба Василий Васильевич обнаружил особые приметы массивных звезд на поздних стадиях

эволюции – пылевые оболочки, разрешенные на изображениях космических телескопов. Он начал систематический поиск таких объектов. Комплексный подход и глубина анализа дали свои плоды: Гварамадзе начал активно публиковать уникальные результаты своих поисков в лучших научных журналах. Тут же проявились и его организаторские способности: для каждого уникального объекта он умел составить команду, включавшую всех необходимых для исследования конкретной звезды специалистов – наблюдателей, модельеров, - и во главе команды полностью «разобраться» в деталях эволюции каждой редкой массивной звезды. Когда в 2020 году Василий Васильевич представлял на Ломоносовскую премию МГУ свою работу «Обнаружение и исследование чрезвычайно редких звезд», выяснилось, что за 15 лет он опубликовал более 50 статей в журналах верхнего квадриля, в том числе – в Nature первым автором. Его основные результаты, основанные на архивных данных и на инициированных им спектральных наблюдениях крупнейших телескопов SALT и БТА, включали: три «истинные» LBV-звезды, пять голубых сверхгигантов с околозвездными оболочками, быстро вращающуюся убегающую массивную звезду с подковообразной околозвездной оболочкой, остаток сверхновой вокруг массивной рентгеновской двойной системы SXP 1323 в Малом Магеллановом Облаке, продукт слияния двух массивных белых карликов, и многое другое... В ГАИШ Василий Васильевич являлся со-руководителем госбюджетной научной темы «Сверхновые, массивные звезды и их взаимодействие с окружающей средой», неоднократно выигрывал для института и для себя гранты РФФИ. Смерть такого выдающегося, крайне продуктивного ученого в самом творческом расцвете – огромная потеря для ГАИШ МГУ, для всей астрономии.

O.K. Сильченко

## Obituary on [International Astronomical Union \(IAU\) web site](#)

### In Memoriam: Vasilii V. Gvaramadze

Dear members of the massive star community, It is with great sadness that we have learned that our colleague Vasilii V. Gvaramadze has recently passed away. Norbert Langer has accepted write a few words about our esteemed colleague that I attach below. Vasilii will be deeply missed by our community.

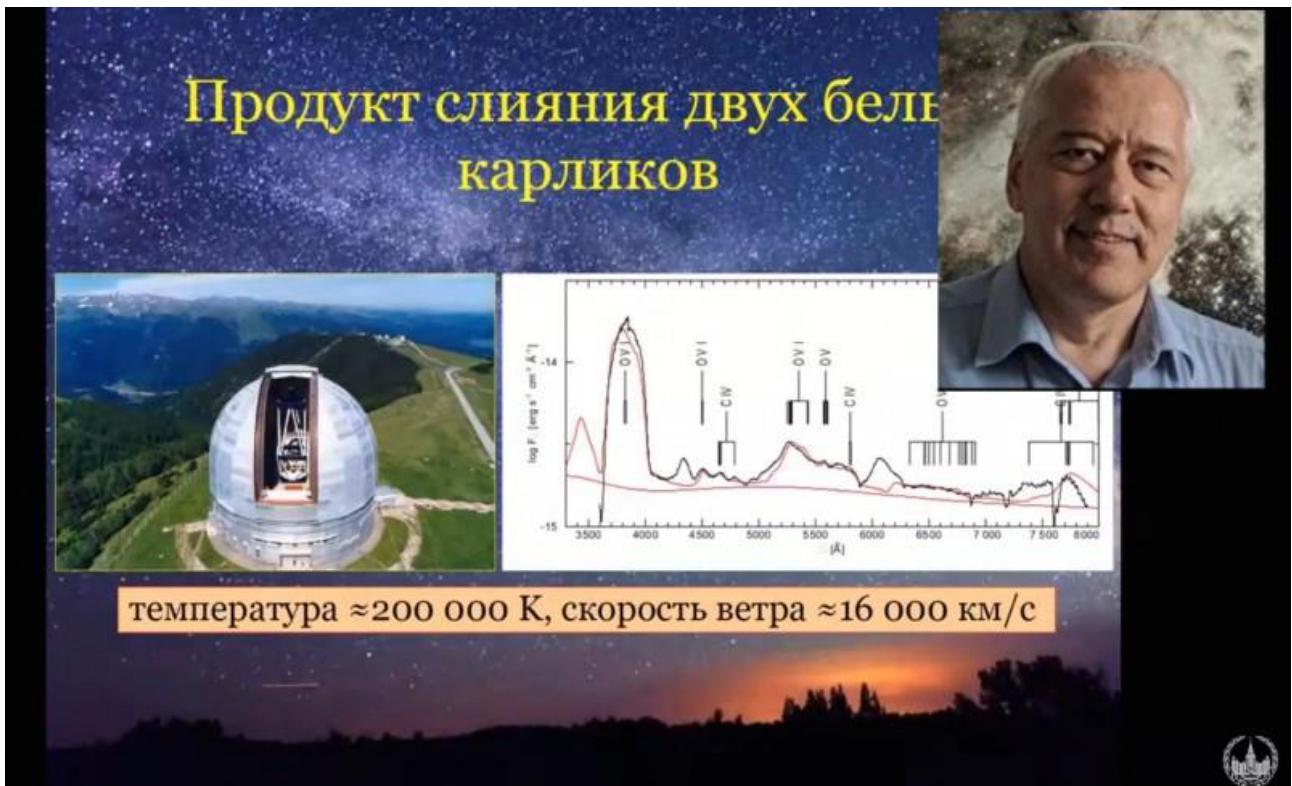
Nicole St-Louis,  
on behalf the IAU G2 organizing committee (Lida Oskinova, Fabrice Martins, Nidia Morrell, Sergio Simon-Diaz, Miriam Garcia, Sylvia Ekström)

**Vasilii V. Gvaramadze: July 9, 1960- September 2, 2021**

Vasilii started out as a theorist. His early career research on plasma physics and magneto-hydrodynamics allowed him to develop a deep understanding of astrophysical flows. He profited from this when his research became observationally oriented during the last two decades. He developed a uniquely successful strategy to identify massive stars and their remnants based on their unusual nebulae, which often turned out to be key objects for advancing our understanding

on their evolution. Vasilii discovered post-main sequence runaway stars, atypical LBVs and supernova remnants, and pre- and post-supernova stars — including a WO-type Wolf-Rayet star which appears to be both. The originality and impact of his work allowed him to obtain data with the most advanced ground and space based telescopes, and to publish his work in the highest quality journals. Vasilii passed away at the peak of his career. His ground-breaking interpretations of the massive stars and nebulae he observed will keep inspiring many of us.

[Видео](#) - презентация цикла работ на соискание премии имени М.В. Ломоносова 2020: «Обнаружение и исследование чрезвычайно редких звезд».



#### Ссылки:

<http://www.planetary-department-iki.ru/labs/labs534.html>

<https://istina.msu.ru/profile/Gvaramadze/>

#### Наиболее цитируемые публикации:

1. Gvaramadze, VV; Kniazev, AY; Gallagher, JS; Osokinova, LM; Chu, YH; Gruendl, RA; Katkov, IY. SALT observations of the supernova remnant MCSNRJ0127-7332 and its associated Be X-ray binary SXP 1062 in the SMC  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 503(3), 3856-3866 (2021)
2. Mullner, M; Zwintz, K; Corsaro, E; Steindl, T; Potravnov, I; Guenther, EW; Kniazev, A; Gvaramadze, V.  
Searching for solar-like oscillations in pre-main sequence stars using APOLLO(star) Can we find

the young Sun?

ASTRONOMY & ASTROPHYSICS 647, - (2021)

3. Osokinova, LM; Gvaramadze, VV; Grafener, G; Langer, N; Todt, H.  
X-rays observations of a super-Chandrasekhar object reveal an ONe and a CO white dwarf merger product embedded in a putative SN Iax remnant  
ASTRONOMY & ASTROPHYSICS 644, - (2020)
4. Maryeva, OV; Gvaramadze, VV; Kniazev, AY; Berdnikov, LN.  
Wray 15-906: a candidate luminous blue variable discovered with WISE, Herschel, and SALT  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 498(4), 5093-5108 (2020)
5. Gvaramadze, VV; Kniazev, AY; Graefener, G; Langer, N.  
WR 72: a born-again planetary nebula with hydrogen-poor knots  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 492(3), 3316-3322 (2020)
6. Gvaramadze, VV; Kniazev, AY; Castro, N; Katkov, IY.  
HD 93795: a late-B supergiant star with a square circumstellar nebula  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 492(2), 2383-2392 (2020)
7. Gvaramadze, VV; Pakhomov, YV; Kniazev, AY; Ryabchikova, TA; Langer, N; Fossati, L; Grebel, EK.  
TYC8606-2025-1: a mild barium star surrounded by the ejecta of a very late thermal pulse  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 489(4), 5136-5145 (2019)
8. Gvaramadze, VV; Grafener, G; Langer, N; Maryeva, OV; Kniazev, AY; Moskvitin, AS; Spiridonova, OI.  
A massive white-dwarf merger product before final collapse  
NATURE 569(7758), 684-+ (2019)
9. Gvaramadze, VV; Kniazev, AY; Osokinova, LM.  
Discovery of a putative supernova remnant around the long-period X-ray pulsar SXP 1323 in the Small Magellanic Cloud  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 485(1), L6-L10 (2019)
10. Green, S; Mackey, J; Haworth, TJ; Gvaramadze, VV; Duffy, P.  
Thermal emission from bow shocks I. 2D hydrodynamic models of the Bubble Nebula  
ASTRONOMY & ASTROPHYSICS 625, - (2019)
11. Gvaramadze, VV; Maryeva, OV; Kniazev, AY; Alexashov, DB; Castro, N; Langer, N; Katkov, IY.  
CPD-64 degrees 2731: a massive spun-up and rejuvenated high-velocity runaway star  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 482(4), 4408-4421 (2019)
12. Gvaramadze, VV; Kniazev, AY; Castro, N; Grebel, EK.  
Two Circumstellar Nebulae Discovered with the Wide-field Infrared Survey Explore and Their Massive Central Stars  
ASTRONOMICAL JOURNAL 157(2), - (2019)
13. Gvaramadze, VV; Alexashov, DB; Katushkina, OA; Kniazev, AY.  
Modelling interstellar structures around Vela X-1  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 474(4), 4421-4431 (2018)
14. Gvaramadze, VV; Kniazev, AY; Maryeva, OV; Berdnikov, LN.  
Optical spectroscopy of the blue supergiant Sk-69 degrees 279 and its circumstellar shell with SALT  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 474(1), 1412-1425 (2018)
15. Katushkina, OA; Alexashov, DB; Gvaramadze, VV; Izmodenov, VV.  
An astrosphere around the blue supergiant kappa Cas: possible explanation of its filamentary

- structure  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 473(2), 1576-1588 (2018)
16. Gvaramadze, VV; Langer, N; Fossati, L; Bock, DCJ; Castro, N; Georgiev, IY; Greiner, J; Johnston, S; Rau, A; Tauris, TM.  
A solar-type star polluted by calcium-rich supernova ejecta inside the supernova remnant RCW 86  
NATURE ASTRONOMY 1(6), - (2017)
17. Gvaramadze, VV; Mackey, J; Kniazev, AY; Langer, N; Chene, AN; Castro, N; Haworth, TJ; Grebel, EK.  
IRAS 18153-1651: an HII region with a possible wind bubble blown by a young main-sequence B star  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 466(2), 1857-1867 (2017)
18. Katushkina, OA; Alexashov, DB; Izmodenov, VV; Gvaramadze, VV.  
Non-monotonic spatial distribution of the interstellar dust in astrospheres: finite gyroradius effect  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 465(2), 1573-1585 (2017)
19. Kniazev, AY; Gvaramadze, VV; Berdnikov, LN.  
Salt spectroscopy of evolved massive stars  
IN: STARS: FROM COLLAPSE TO COLLAPSE. PROC. NIZHNY ARKHYZ, 3-7 OCTOBER 2016.  
ASTRONOMICAL SOCIETY OF THE PACIFIC (510), 480-483 (2017)
20. Gvaramadze, VV; Kniazev, AY.  
Central stars of mid-infrared nebulae discovered with spitzer and wise  
In: B[E] PHENOMENON: FORTY YEARS OF STUDIES. PROC. PRAGUE, CZECH REPUBLIC, JUNE 26 – JULY 1 2016. ASTRONOMICAL SOCIETY OF THE PACIFIC (508), 207-212 (2017)
21. Kniazev, AY; Gvaramadze, VV; Berdnikov, LN.  
MN48: a new Galactic bona fide luminous blue variable revealed by Spitzer and SALT  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 459(3), 3068-3077 (2016)
22. Mackey, J; Haworth, TJ; Gvaramadze, VV; Mohamed, S; Langer, N; Harries, TJ.  
Detecting stellar-wind bubbles through infrared arcs in H II regions  
ASTRONOMY & ASTROPHYSICS 586, - (2016)
23. Gvaramadze, VV; Kniazev, AY; Berdnikov, LN.  
Discovery of a new bona fide luminous blue variable in Norma  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 454(4), 3710-3721 (2015)
24. Gvaramadze, VV; Kniazev, AY; Bestenlehner, JM; Bodensteiner, J; Langer, N; Greiner, J; Grebel, EK; Berdnikov, LN; Beletsky, Y.  
The blue supergiant MN18 and its bipolar circumstellar nebula  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 454(1), 219-237 (2015)
25. Kniazev, AY; Gvaramadze, VV; Berdnikov, LN.  
WS1: one more new Galactic bona fide luminous blue variablea  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 449(1), L60-L64 (2015)
26. Mackey, J; Gvaramadze, VV; Mohamed, S; Langer, N.  
Wind bubbles within H II regions around slowly moving stars  
ASTRONOMY & ASTROPHYSICS 573, - (2015)
27. Gvaramadze, VV; Kniazev, AY; Berdnikov, LN; Langer, N; Grebel, EK; Bestenlehner, JM.  
Discovery of a new Galactic bona fide luminous blue variable with Spitzer  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 445(1), L84-L88 (2014)

28. Meyer, DMA; Mackey, J; Langer, N; Gvaramadze, VV; Mignone, A; Izzard, RG; Kaper, L.  
Models of the circumstellar medium of evolving, massive runaway stars moving through the  
Galactic plane  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 444(3), 2754-2775 (2014)
29. Mackey, J; Mohamed, S; Gvaramadze, VV; Kotak, R; Langer, N; Meyer, DMA; Moriya, TJ;  
Neilson, HR.  
Interacting supernovae from photoionization-confined shells around red supergiant stars  
NATURE 512(7514), 282-+ (2014)
30. Gvaramadze, VV; Chene, AN; Kniazev, AY; Schnurr, O; Shenar, T; Sander, A; Hainich, R; Langer,  
N; Hamann, WR; Chu, YH; Gruendl, RA.  
Discovery of a new Wolf-Rayet star and a candidate star cluster in the Large Magellanic Cloud  
with Spitzer  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 442(2), 929-945 (2014)
31. Meyer, DMA; Gvaramadze, VV; Langer, N; Mackey, J; Boumis, P; Mohamed, S.  
On the stability of bow shocks generated by red supergiants: the case of IRC-10414  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 439(1), L41-L45 (2014)
32. Schneider, FRN; Izzard, RG; de Mink, SE; Langer, N; Stolte, A; de Koter, A; Gvaramadze, VV;  
Hussmann, B; Liermann, A; Sana, H.  
AGES OF YOUNG STAR CLUSTERS, MASSIVE BLUE STRAGGLERS, AND THE UPPER MASS LIMIT  
OF STARS: ANALYZING AGE-DEPENDENT STELLAR MASS FUNCTIONS  
ASTROPHYSICAL JOURNAL 780(2), - (2014)
33. Gvaramadze, VV; Miroshnichenko, AS; Castro, N; Langer, N; Zharikov, SV.  
TYC 3159-6-1: a runaway blue supergiant  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 437(3), 2761-2771 (2014)
34. Gvaramadze, VV; Menten, KM; Kniazev, AY; Langer, N; Mackey, J; Kraus, A; Meyer, DMA;  
Kaminski, T.  
IRC-10414: a bow- shock-producing red supergiant star  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 437(1), 843-856 (2014)
35. Mackey, J; Langer, N; Gvaramadze, VV.  
Dynamics of H II regions around exiled O stars  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 436(1), 859-880 (2013)
36. Todt, H; Kniazev, AY; Gvaramadze, VV; Hamann, WR; Buckley, D; Crause, L; Crawford, SM;  
Gulbis, AAS; Hettlage, C; Hooper, E; Husser, TO; Kotze, P; Loaring, N; Nordsieck, KH;  
O'Donoghue, D; Pickering, T; Potter, S; Romero-Colmenero, E; Vaisanen, P; Williams, T; Wolf,  
M.  
Abell 48-a rare WN-type central star of a planetary nebula  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 430(3), 2302-2312 (2013)
37. Gvaramadze, VV; Kniazev, AY; Chene, AN; Schnurr, O.  
Two massive stars possibly ejected from NGC 3603 via a three-body encounter  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 430(1), L20-L24 (2013)
38. Burgemeister, S; Gvaramadze, VV; Stringfellow, GS; Kniazev, AY; Todt, H; Hamann, WR.  
WR 120bb and WR 120bc: a pair of WN9h stars with possibly interacting circumstellar shells  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 429(4), 3305-3315 (2013)
39. Gvaramadze, VV; Langer, N; Mackey, J.  
zeta Oph and the weak-wind problem  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 427(1), L50-L54 (2012)

40. Gvaramadze, VV; Weidner, C; Kroupa, P; Pflamm-Altenburg, J.  
Field O stars: formed in situ or as runaways?  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 424(4), 3037-3049 (2012)
41. Gvaramadze, VV; Menten, KM.  
Discovery of a parsec-scale bipolar nebula around MWC349A  
ASTRONOMY & ASTROPHYSICS 541, - (2012)
42. Gvaramadze, VV; Kniazev, AY; Miroshnichenko, AS; Berdnikov, LN; Langer, N; Stringfellow, GS; Todt, H; Hamann, WR; Grebel, EK; Buckley, D; Crause, L; Crawford, S; Gulbis, A; Hettlage, C; Hooper, E; Husser, TO; Kotze, P; Loaring, N; Nordsieck, KH; O'Donoghue, D; Pickering, T; Potter, S; Colmenero, ER; Vaisanen, P; Williams, T; Wolf, M; Reichart, DE; Ivarsen, KM; Haislip, JB; Nysewander, MC; LaCluyze, AP.  
Discovery of two new Galactic candidate luminous blue variables with Wide-field Infrared Survey Explorer  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 421(4), 3325-3337 (2012)
43. Stringfellow, GS; Gvaramadze, VV; Beletsky, Y; Kniazev, AY.  
Spectral identification of new galactic clbv and wr stars  
IN: FOUR DECADES OF MASSIVE STAR RESEARCH. PROC. AUBERGE DU LAC TAUREAU, QUÉBEC, CANADA, 11–15 JULY 2011. ASTRONOMICAL SOCIETY OF THE PACIFIC (465), 514-518 (2012)
44. Stringfellow, GS; Gvaramadze, VV; Beletsky, Y; Kniazev, AY.  
New galactic candidate luminous blue variables and wolf-rayet stars  
IN: FROM INTERACTING BINARIES TO EXOPLANETS: ESSENTIAL MODELING TOOLS. PROC. TATRANSKA LOMNICA, SLOVAKIA, 18–22 JULY 2011. INTERNATIONAL ASTRONOMICAL UNION (282), 267-271 (2012)
45. Gvaramadze, VV; Kniazev, AY; Kroupa, P; Oh, S.  
Search for OB stars running away from young star clusters II. The NGC6357 star-forming region  
ASTRONOMY & ASTROPHYSICS 535, - (2011)
46. Gvaramadze, VV; Roser, S; Scholz, RD; Schilbach, E.  
4U 1907+09: an HMXB running away from the Galactic plane  
ASTRONOMY & ASTROPHYSICS 529, - (2011)
47. Gvaramadze, VV; Pflamm-Altenburg, J; Kroupa, P.  
Massive runaway stars in the Small Magellanic Cloud  
ASTRONOMY & ASTROPHYSICS 525, - (2011)
48. Gvaramadze, VV; Gualandris, A.  
Very massive runaway stars from three-body encounters  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 410(1), 304-312 (2011)
49. Gvaramadze, VV; Kroupa, P; Pflamm-Altenburg, J.  
Massive runaway stars in the Large Magellanic Cloud  
ASTRONOMY & ASTROPHYSICS 519, - (2010)
50. Gvaramadze, VV; Kniazev, AY; Fabrika, S.  
Revealing evolved massive stars with Spitzer star  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 405(2), 1047-1060 (2010)
51. Gvaramadze, VV; Kniazev, AY; Fabrika, S; Sholukhova, O; Berdnikov, LN; Cherepashchuk, AM; Zharova, AV.  
MN112: a new Galactic candidate luminous blue variable star  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 405(1), 520-524 (2010)

52. Gvaramadze, VV; Kniazev, AY; Hamann, WR; Berdnikov, LN; Fabrika, S; Valeev, AF.  
A new Wolf-Rayet star and its circumstellar nebula in Aquila  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 403(2), 760-767 (2010)
53. Gvaramadze, V; Fabrika, S; Hamann, WR; Sholukhova, O; Valeev, AF; Goranskij, VP;  
Cherepashchuk, AM; Bomans, DJ; Osokinova, LM.  
Discovery of a new WNL star in Cygnus with Spitzer  
HIGHLIGHTS OF ASTRONOMY, 15, 391-391 (2010)
54. Gvaramadze, VV; Gualandris, A; Zwart, SP.  
High-velocity runaway stars from three-body encounters  
STAR CLUSTERS: BASIC GALACTIC BUILDING BLOCKS THROUGHOUT TIME AND SPACE (266),  
413-+ (2010)
55. Gvaramadze, VV; Fabrika, S; Hamann, WR; Sholukhova, O; Valeev, AF; Goranskij, VP;  
Cherepashchuk, AM; Bomans, DJ; Osokinova, LM.  
Discovery of a new Wolf-Rayet star and its ring nebula in Cygnus  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 400(1), 524-530 (2009)
56. Gvaramadze, VV; Gualandris, A; Portegies Zwart, S.  
On the origin of high-velocity runaway stars  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 396(1), 570-578 (2009)
57. Gvaramadze, VV.  
HD271791: dynamical versus binary-supernova ejection scenario  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 395(1), L85-L89 (2009)
58. Gvaramadze, VV; Bomans, DJ.  
Search for OB stars running away from young star clusters I. NGC 6611  
ASTRONOMY & ASTROPHYSICS 490(3), 1071-1077 (2008)
59. Gvaramadze, VV; Bomans, DJ.  
BD+43 degrees 3654 - a blue straggler?  
ASTRONOMY & ASTROPHYSICS 485(3), L29-L32 (2008)
60. Gvaramadze, VV; Gualandris, A; Portegies Zwart, S.  
Hyperfast pulsars as the remnants of massive stars ejected from young star clusters  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 385(2), 929-938 (2008)
61. Gvaramadze, VV.  
Separated before birth: pulsars B2020+28 and B2021+51 as the remnants of runaway stars  
ASTRONOMY & ASTROPHYSICS 470(2), L9-L12 (2007)
62. Gvaramadze, VV.  
Supernova remnant S 147 and its associated neutron star(s)  
ASTRONOMY & ASTROPHYSICS 454(1), 239-246 (2006)
63. Gvaramadze, VV.  
On the origin of the system PSR B 1757-24/SNR G 5.4-1.2  
ASTRONOMY & ASTROPHYSICS 415(3), 1073-1078 (2004)
64. Gvaramadze, VV; Vikhlinin, AA.  
Point X-ray sources in the SNR G 315.4-2.30 (MSH 14-63, RCW 86)  
ASTRONOMY & ASTROPHYSICS 401(2), 625-630 (2003)
65. Bock, DCJ; Gvaramadze, VV.  
PSR B1706-44 and the SNR G343.1-2.3 as the remnants of a cavity supernova explosion  
ASTRONOMY & ASTROPHYSICS 394(2), 533-538 (2002)

66. Gvaramadze, VV.  
On the age of PSR B 1509-58  
ASTRONOMY & ASTROPHYSICS 374(1), 259-263 (2001)
67. Gvaramadze, V.  
On the velocity of the Vela pulsar  
ASTRONOMY & ASTROPHYSICS 369(1), 174-177 (2001)
68. Gvaramadze, V.  
A model of the Vela supernova remnant  
ASTROPHYSICS AND SPACE SCIENCE 274(1-2), 195-203 (2000)
69. Gvaramadze, V.  
The nature of the Vela X-ray "jet" - The Rayleigh-Taylor instability and the origin of filamentary structures in the Vela supernova remnant  
ASTRONOMY & ASTROPHYSICS 352(2), 712-722 (1999)
70. Gvaramadze, VV.  
Vela X: A plerion or part of a shell  
ASTRONOMY LETTERS A 24(2), 144-152 (1998)
71. Gvaramadze, VV.  
A possible mechanism for the formation of the ejection fan in the Orion nebula  
ASTRONOMY LETTERS A 23(4), 532-539 (1997)
72. Gvaramadze, VV.  
Jet formation in astrophysical converging flows  
IN: JETS FROM STARS AND GALACTIC NUCLEI, PROC. BAD HONNEF, GERMANY, 3–7 JULY 1995.  
SPRINGER-VERLAG BERLIN HEIDELBERG (471), 92-103 (1996)
73. Gvaramadze, VV.  
Unsteady plasma ejections from hollow accretion columns of galactic neutron-stars as a trigger for gamma-ray bursts  
ASTROPHYSICS AND SPACE SCIENCE 231(1-2), 411-414 (1995)
74. Gvaramadze, V.  
Large-scale structures generated by turbulence in astrophysical jets  
IN: STELLAR JETS AND BIPOLAR OUTFLOWS, PROC. CAPRI, ITALY, SEPTEMBER 18–21 1991.  
SPRINGER NETHERLANDS (186), 395-398 (1993)
75. Gvaramadze, VV; Dimitrov, BG.  
Large-scale vortices in compressible turbulent medium with the magnetic-field  
PLASMA ASTROPHYSICS 311, 263-267 (1990)
76. Gvaramadze, VV; Khomenko, GA; Tur, AV.  
Large-scale vortices in helical turbulence of incompressible fluid  
GEOPHYSICAL AND ASTROPHYSICAL FLUID DYNAMICS 46(1-2), 53-69 (1989)
77. Gvaramadze, VV; Lominadze, JG; Ruzmaikin, AA; Sokoloff, DD; Shukurov, AM.  
Turbulent generation of magnetic-fields in astrophysical jets  
ASTROPHYSICS AND SPACE SCIENCE 140(1), 165-174 (1988)