

On the contest “Best reviews and articles published in *Uspekhi Fizicheskikh Nauk* [*Physics – Uspekhi*] (*UFN*) journal in 2014”

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Owing to state support in the scientific journal development programs* it became possible to carry out a 2015 contest for the best *UFN* article of 2014. An analogous competition was carried out in 2014 (participants in the competition were articles of 2013, see *UFN* 185 (1) 2 (2015) [*Phys. Usp.* 58 (1) 1 (2015)]). As the assistance in journal development programs was extended, a competition of publications of 2014 was held.

As the last year, it was decided to carry out the contest separately for “Reviews of topical problems” and for papers from other *UFN* rubrics (two sets of nominations). The authors of monographic reviews published in *UFN* during 21 years (from 1994 to 2015) were again invited as experts (of course, except for the authors of reviews and articles of 2014). Unfortunately, this time concrete nominations were proposed by only 85 experts. This time it was not so unexpected for us that 76 out of 98 papers published in the rubrics entering the so-called Citable Items databases of Web of Science were nominated for the Prize. In our opinion, this shows that virtually each paper published in *UFN* in 2014 (the same as in 2013) was also believed by someone of the expert authors to be the best, that is, the larger part of the articles of 2014 also found their interested and thoughtful readers, which affords pleasure.

The ranged list of articles nominated by the expert authors was delivered to the members of the *UFN* editorial board asking them to take into account this list and propose on its basis a list of nominations for the 2014 *UFN* Prize according to their personal preferences. Given as a reference is also the rating of these articles by citing according to the Web of Science data, to the *UFN* site data, and to the popularity of these articles in downloading from *UFN* and IOP sites.

On the basis of nominations sent by the members of *UFN* editorial board, the nominated articles were again listed. As the difference in the number of votes of the members of *UFN* editorial board for the first four review articles was rather small, it was decided not to single out specially any of the reviews (not to give the Prize in the category “Reviews of topical problems” to one winner), but to refer to the authors of all the four reviews as laureates of *UFN* journal Competition “Best *UFN* review of 2014” and to pay a 75,000 rubes as prize for each of the reviews.

Among the papers from the rubrics “Physics of our days”, “Instruments and methods of research”, “Methodical notes”, “From the history of physics”, “Conferences and symposia” most votes were given to the paper by V I Ritus (“From the history of physics”), the paper by Vaks V L et al. (“Devices and methods of research”), the paper by Kardashev N S et al. (“Physics of our days”), and the paper by Rubakov V A (“Physics of our days”), which received an absolute majority of votes of the *UFN* editorial board. All the four papers that received the majority of votes were decided to be thought of as winners of the competition in the nomination “Best *UFN* articles of 2014”. Taking into account that V A Rubakov is the first deputy editor of *UFN* journal, he will not be paid royalties for this prize. Thus, the list of reviews and articles by the *UFN* competition winners of 2014 is as follows:

Best *UFN* reviews of 2014 (laureates of the contest):

- Berezinsky V S, Dokuchaev V I, Eroshenko Yu N “Small scale clumps of dark matter” *Phys. Usp.* 57 1–36 (2014) [in Russian: “Melkomasshtabnye sgustki temnoi materii” *Usp. Fiz. Nauk* 184 (1) 3–42 (2014)]
 Dolgoplov V T “Integer quantum Hall effect and related phenomena” *Phys. Usp.* 57 105–127 (2014) [in Russian: “Tselochislennyyi kvantovyi effekt Kholla i sopryazhennyye s nim yavleniya” *Usp. Fiz. Nauk* 184 (2) 113–136 (2014)]
 Ivanitskii G R, Deev A A, Khizhnyak E P “Long-term dynamic structural memory in water: can it exist” *Phys. Usp.* 57 37–65 (2014) [in Russian: “Mozhet li sushchestvovat’ dolgovremennaya strukturno-dinamicheskaya pamyat’ vody” *Usp. Fiz. Nauk* 184 (1) 43–74 (2014)]
 Smirnov B M “Electrical cycle in the Earth’s atmosphere” *Phys. Usp.* 57 1041–1062 (2014) [in Russian: “Elektricheskii tsikl v zemnoi atmosfere” *Usp. Fiz. Nauk* 184 (11) 1153–1176 (2014)]

Best *UFN* article of 2014 (winner of the contest):

- Rubakov V A “The Null Energy Condition and its violation” *Phys. Usp.* 57 128–142 (2014) [in Russian: “Isotropnoe uslovie energodominantnosti i ego narushenie” *Usp. Fiz. Nauk* 184 (2) 137–152 (2014)]

Best *UFN* articles of 2014 (laureates of the contest):

- Vaks V L, Domracheva E G, Sobakinskaya E A, Chernyaeva M B “Exhaled breath analysis: physical methods, instruments and medical diagnostics” *Phys. Usp.* 57 684–701 (2014) [in Russian: “Analiz vydychaemogo vozdukh: fizicheskie metody, pribory i meditsinskaya diagnostika” *Usp. Fiz. Nauk* 184 (7) 739–758 (2014)]
 Kardashev N S, Novikov I D, Lukash V N, Pilipenko S V, Mikheeva E V, Bisikalo D V, Wiebe D Z, Doroshkevich A G, Zasov A V, Zinchenko I I, Ivanov P B, Kostenko V I, Larchenkova T I, Likhachev S F, Malov I F, Malofeev V M, Pozanenko A S, Smirnov A V, Sobolev A M, Cherepashchuk A M, Shchekinov Yu A “Review of scientific topics for Millimetron space observatory” *Phys. Usp.* 57 1199–1228 (2014) [in Russian: “Obzor nauchnykh zadach dlya observatorii Millimetron” *Usp. Fiz. Nauk* 184 (12) 1319–1352 (2014)]
 Ritus V I “Tamm–Sakharov group in work on the first hydrogen bomb” *Phys. Usp.* 57 903–911 (2014) [in Russian: “Gruppa Tamma–Sakharova v rabote nad pervoi vodorodnoi bomboi” *Usp. Fiz. Nauk* 184 (9) 975–983 (2014)]

All the authors of the winner papers of the “*UFN*-2014” Contest were solemnly given Diplomas of laureate in P N Lebedev Physical Institute (FIAN) at the General Meeting of the Division of Physical Sciences of the Russian Academy of Sciences on December 7, 2015 and will be awarded from 50,000 to 75,000 rubles for article (irrespective of the number of co-authors in each of the laureate papers). The English-language versions of laureate papers will over the entire year of 2016 be open to view on the site of our partners — Institute of Physics Publishing (IOP): <http://iopscience.iop.org/1063-7869/> and will also be tagged with a special sign of laureate papers on the *UFN* site (www.ufn.ru) where a special page will be devoted to the “*UFN*-2014” Contest.

We congratulate all the Prize winners of the “*UFN* 2014” Competition and are grateful to everybody who contributed to the implementation of this competition and took part in its organization. If the State support of the scientific journal development program is extended over 2016, we plan to carry out the competition “Best *UFN* reviews and articles of 2015”.

Chairman of the Competition committee *L V Keldysh*
 Secretary of the Competition committee *M S Aksept’eva*

* Information about government support of the programs of development of scientific journals see on the next page.

*** Information about government support of the programs of development of scientific journals**

The Ministry of Education and Science of the Russian Federation of the Nonprofit Partnership National Electronic-Information Consortium (NP NEICON) as executor of works announced in August 2014 the competition for state assistance in the scientific journals development programs. The competition was carried out in the framework of the federal special-purpose program, Research and Elaboration in Priority Directions of the Development of Scientific and Technical Structure of Russia in 2014–2020 (legislative enactment 3.3.1-IV turn-1) on the topic “Working out and implementing means for demonstration and popularization of scientific-research and scientific-technical works and advances in education and science stimulating the formation of positive views in elucidation of topical processes in scientific research and intellectual technologies”, Code 2014-14-597-0006 (for information about the competition, see the sites <http://konkurs-jurnalov.neicon.ru/>, minobrnauki.rf/proekty/podderzhka-nauchnykh-zhurnalov/). The assistance in scientific journals of 2015 was continued.