ORAL ISSUE OF THE JOURNAL "USPEKHI FIZICHESKIKH NAUK"

PACS numbers: **01.65.** + **g** 

## On the history of Uspekhi Fizicheskikh Nauk

(Opening address)

V L Ginzburg

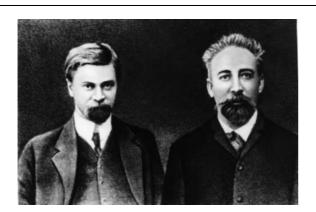
DOI: 10.3367/UFNe.0179.200906b.0562

<u>Abstract.</u> Some events and facts are presented from the 90-year history of the journal *Uspekhi Fizicheskikh Nauk*; its first issue appeared on 29 April 1918.

Dear colleagues!

Many thanks to everyone who has come to take part in this jubilee marking 90 years of the *Uspekhi Fizicheskikh Nauk* journal. Ninety years is not a classical jubilee number. However, if we recall that the journal was founded in 1918, we then realize this is an important watershed. Indeed, the First World War had just ended — for Russia anyway — and both the February Revolution and the October coup had taken place, and a new life was beginning. The important thing was to start, that was essential.

In my opinion, before World War I, before these 90 years, science in Russia—physics anyway—had no great achievements to really boast about. We can of course mention Mendeleev, Popov, Umov, Lebedev. In fact, immediately before the war and, say, right after it our physics was not really very strong. One should not forget either that



Petr Petrovich Lazarev and Petr Nikolaevich Lebedev. The photo (taken in 1912) is kept in the History Room of the P N Lebedev Institute of Physics of the Russian Academy of Sciences (FIAN).

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Received 10 November 2008 *Uspekhi Fizicheskikh Nauk* **179** (6) 562 – 570 (2009)

DOI: 10.3367/UFNr.0179.200906b.0562

Translated by V I Kisin; edited by M S Aksent'eva

momentous events were taking place in that period in the West. Suffice it to mention that the creation of general relativity was completed and Einstein had also published his famous papers dealing with the theory of radiation. Our physicists were probably sensitive to this atmosphere and were quite right in deciding to set up *Uspekhi* as a journal reflecting the latest achievements in order for physicists to be conscious of where they needed to catch up and later, perhaps, to start to work on an equal footing. This is what happened in 1918.

How did it all unfold? I wouldn't claim that I know all of it very well but as far as I understand, the central actor in this was Petr Petrovich Lazarev, known to colleagues as PePeLaz. He was Lebedev's student, a highly skilled physicist, and was elected a full member of the Academy in 1917 (still the Imperial Academy of Sciences). And Lazarev, who had some associates on the staff—I would rather call them his allies—set up this *Uspekhi Fizicheskhikh Nauk* journal; its first issue appeared in 1918.

Let us have a look at some early history of Uspekhi Fizicheskikh Nauk. P P Lazarev was of course carrying on with his job. He invited Shpol'skii in fairly early. However, in 1929 Lazarev was arrested — I do not know why. Anyway, he spent a year in prison. One year may not sound like much but I think this is self-deception. A year in prison is a long time, and in this case the situation was aggravated by the fact that Lazarev's wife committed suicide while he was incarcerated. So he was left alone.... Not to forget: upon releasing him from prison, the authorities sent him into exile for several years. All this hit him quite terribly. To make things worse, the institute he headed—the Institute of Physics and Biophysics of the People's Commissariat of the Health Service (Narodnyi Komissariat Zdravookhraneniya — NKZ), which was situated in our old FIAN building on Bol'shaya Miusskaya Street—was disbanded. That was another blow he had to absorb. Apparently, he never recovered from this. He died in 1942. I saw him only once at a talk of some sort, but by that time he had ceased playing a leading role in Soviet physics; anyway, I wish to remember him now with gratitude both as a man as such, and as the organizer of Uspekhi Fizicheskikh Nauk journal. Eduard Vladimirovich Shpol'skii, whom many of you here possibly remember, found himself after Lazarev's arrest, and later, the principal editor of the journal. In 1930 he became editor-in-chief but during the first stage Boris Mikhailovich Gessen was for him a kind of 'partner'.

<sup>1</sup> Illustrations, photographs, bibliography and statistical data were selected by M S Aksent'eva who also prepared tables and the presentation of the talk. The presentation and the text with additional photos, references and appendices will be made available on the *UFN* site (www.ufn.ru).

Рукописи для журнала "Успъхи Физическихъ Наукъ" просять направлять по адресу: Москва, Міусская площадь, Физическій Институть Московскаго Научнаго Института, академ. проф. П. П. Лазареву.

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The author well receive 50 reprints of the paper free and a royalty (fee) in the amount of 100 rubles per signature (1 signature = 40,000 letter symbols).

The journal can be subscribed to in Moscow: The Moscow Science Institute, 26 Varvarka St., and Priroda (Nature) Publishing House, 24 Mokhovaya St. Annual subscription: 20 rubles.

Russian issues of the Archive of Physical Sciences can also be purchased at the same address (issues 1 and 2) at 10 roubles an issue.

The guidelines for *UFN* authors were published in issue 1. A salient feature here is the importance that the founder and first Editor-in-Chief of *UFN* P P Lazarev placed on authors' skills in writing and preparing their papers for the journal. The honorarium (royalty) offered to authors in the guidelines — 100 rubles per signature (40,000 letter symbols) — was at the time a very significant sum of money!



Petr Petrovich Lazarev (sitting at the table in the center) and a group of Moscow physicists working in P N Lebedev's laboratory, headed after P N Lebedev's death by P P Lazarev (a photo from FIAN's history room, 1913). Standing (left to right) are K A Leontev, T K Molodyi, P V Shmakov, N I Fevralev, S I Vavilov, A S Berkman, S Ya Turlygin, N V Baklin, N V Bausov, N Ya Selyakov. Sitting (also left to right): E V Shpol'skii, A I Akulov (P N Lebedev's mechanic), A B Mlodzeevskii, A G Kalashnikov, V K Arkadiev, P P Lazarev, (sitting at table) M A Chuprova, N K Shchodro, S N Rzhevkin.

## УСПЕХИ ФИЗИЧЕСКИХ НЯУК

сборников того же названия, издававшихся "Московским Научным Издательством" в 1918 г.

## USPEKHI FIZICHESKIKH NAUK

Is not a periodical publication and constitutes a direct follow-up to collections выходят непериодически и являются непосредственным продолжением of articles published under the same title by the Moscow Science Publishing House

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The originals must be type-written or clearly rewritten on one side of paper

Citations must present the name and surname of the author cited, title of the журнала, том, страницу и год, как это принято в Annalen der Physik. journal, volume, page number and year of publication, as is customary in Annalen

> On all matters of editing please contact the editor, Academician P.P. Lazarev, daily from 2 to 3 o'clock at the Physics Institute (see address above) or his deputy E.V. Shpol'skii daily (with the exception of Friday) ibid. from 1 to 2 o'clock.

As of the first issue of volume 2 of *Uspekhi Fizicheskikh Nauk*, printed in 1920, instructions for UFN authors indicate E V Shpol'skii as the deputy to Editor-in-Chief P P Lazarev



Eduard Vladimirovich Shpol'skii (detail of a 1913 photograph).

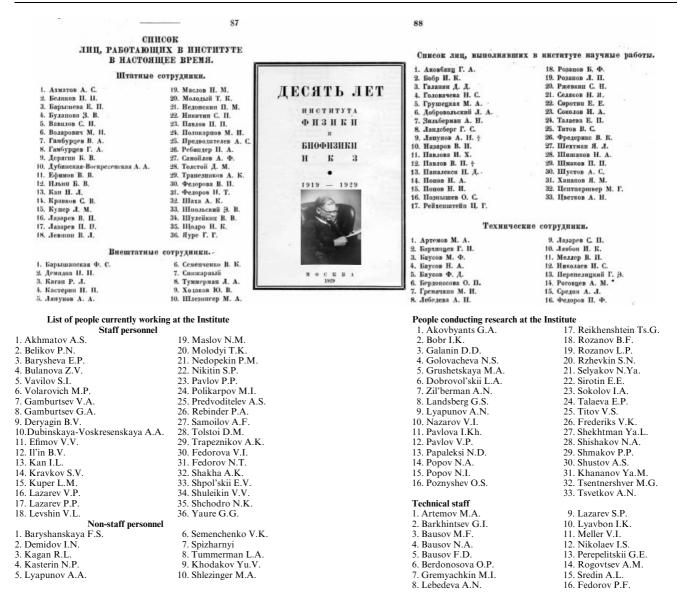
B M Gessen—an old bolshevik on the one hand and a philosopher on the other (incidentally, he was a student the same year Igor Evgenievich Tamm was, and they were friends)—was, I believe, a man of culture. I read some of his published work, for instance on the history and evolution of physics; he was dean of the Physics Department of Moscow State University. His fate is fairly typical. In 1936 he was arrested, tried on 20 December 1936 by the NKVD (Narodnyi Komissariat Vnutrennikh Del-NKVD, People's Commissariat of Internal Affairs) — if the term 'trial' can be accepted here—sentenced to be shot, and executed accordingly on the same day. Those people were not given to long deliberations, so to speak. Recalling it all is fairly terrifying.

Well, Spol'skii was thus left as the only editor from 1936 on. He was a physicist with a modern outlook and ready to fight for new physics. You know, I assume, that at that time a severe ideological war was being fought concerning the

evolution of physics. There existed a monolithic and quite powerful group of people who rejected both the theory of relativity and quantum mechanics. It was not easy for Shpol'skii but he tried hard and I think he had some success with his stance. The only fact I know in this connection is that certain circles insisted on removing him from this post. First, as I already mentioned, he took the part of modern physics, and second, he was Jewish, and this also played its role. It must be said that our physicists protected him—I do not know who personally but I believe that Lev Andreevich Artsimovich, secretary-academician at the time—played an important role. In fact, this protection was quite original. In order to avoid having to answer specific questions, such as who the editor actually was and so forth, they simply used every trick in the book to procrastinate finalizing the setting up of the new editorial staff. If you look up the front pages at the time, you will discover that for relatively many years they displayed the names of two or there people who, as far as I know, did very little in the journal. In 1964, however, the new Editorial Board was officially launched, and Shpol'skii was given the post of chief editor and continued occupying it until his death in 1975.

As for myself – if I may allow myself to speak about my connection to the journal—I had a link to Uspekhi Fizicheskikh Nauk journal as early as 1938. I was still an experimenter that time — not for long though—and had written a review article, "Polarization of emission of canal rays". This was in connection with my graduation year project. I sent this review to Uspekhi Fizicheskikh Nauk journal but it was rejected. I still have this review paper somewhere but I doubt that it was especially valuable. Anyway, I learned some sort of lesson, got the boot in a way. Some time later, after the end of the Great Patriotic War (WWII), I began taking an active part in the work of Uspekhi Fizicheskikh Nauk journal — it somehow happened — and I—in fact unofficially—became a member of the editorial board; in 1964 I joined the editorial staff officially and started doing something, too. I can't say it was very much but this is not for me to say.

Eduard Vladimirovich Shpol'skii died, as I already mentioned, in 1975 at the age of 83, which raised the issue of



Title page and pages 87 and 88 of the book TEN YEARS of the Institute of Physics and Biophysics of the People's Commissariat of the Health Service (NKZ). This report was published by P P Lazarev in 1929 on the 10th anniversary of the founding of the Institute of Physics and Biophysics of the NKZ formed on the basis of the Moscow Physics Research Institute in 1919. This brochure gives a complete list of research projects carried out at the institute and of people who worked at the institute during those 10 years. The list contains the names of many well-known physicists who were UFN authors from the first issue onwards. The institute was disbanded after Lazarev's arrest.









The front page of the second issue of the journal *Uspekhi Fizicheskikh Nauk* of 1930 lists B M Gessen (on the left), P P Lazarev (on the right, the photo taken soon after his return from exile), and E V Shpol'skii as co-editors. However, P P Lazarev's name disappeared already in the first issue of the journal in 1931 and E V Shpol'skii and B M Gessen were left as co-editors; Gessen's name also evaporated off *UFN*'s front page without a trace in 1936. From 1936 until his death on 21August 1975, Eduard Vladimirovich Shpol'skii was permanent Editor-in-Chief of *UFN*.

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СОДЕРЖАНИЕ
Мартовская сессия Академии наук
А. Ф. НОФФЕ
Отчат о работе Физико-технического института 8
C. H. SABAROB
Пути развития Оптического института
Д С. РОЖДЕСТВЕНСКИЙ
Анализ спектров и спектральный анализ 8
И E TAMM
Проблема атомного ядра
B. A. ФOK
Проблема многих тел в квантовой маханике 9
Я. М. ФРЕНКЕЛЬ
Тепловое движение в твердых и жидких телах и теория

## Table of contents

The March session of the Academy of Sciences
Resolution of the March session of the Academy
of Sciences based on the report talks of academicians
A.F. Ioffe, D.S. Rozhdestvenskii and S.I. Vavilov 839
A.F. Ioffe
Report on the work of the Physico-Technical Institute 847
S.I. Vavilov
Approaches to expanding the Optical Institute 892
D.S. Rozhdestvenskii
Analysis of spectra and spectral analysis
I.E. Tamm
Problem of atomic nucleus
V.A. Fok
The manybody problem in quantum mechanics 943
Ya.I. Frenkel
Thermal motion in solids and liquids and theory
of melting

Front page and table of contents of *Uspekhi Fizicheskikh Nauk*, Vol. XVI, issue 7, 1936, in which Eduard Vladimirovich Shpol'skii is announced as sole editor of the journal *Uspekhi Fizicheskikh Nauk*. This issue is totally devoted to talks presented at the session of the USSR Academy of Sciences that took place in Moscow from 14 to 20 March 1936. The issue published the talks by the leading Soviet physicists: A F Ioffe, D S Rozhdestvenskii, S I Vavilov, I E Tamm, V A Fok, and Ya I Frenkel. That was the point where the tradition of publishing scientific sessions of the USSR Academy of Sciences on physics (and later of the Russian Academy of Sciences) in the journal *Uspekhi Fizicheskikh Nauk* was born.

a new editor-in-chief. After a certain delay, Evgenii Konstantinovich Zavoiskii was appointed the new editor. I am sure it was an excellent choice; he was a very good physicist. Alas, he was Editor-in-Chief for less than a year and died at the age of only 69. It so happened, however, that during this year of his editorial duties we lived in neighboring dachas (country house) and talked a lot together, so I happen to know what degree of honest work and attention he devoted to *Uspekhi...*. Unfortunately, he died so early. This is also a convenient point I wish to use to say that, in my opinion, Zavoiskii was one of the greatest Soviet physicists and he certainly deserved the Nobel Prize for his discovery of

electron paramagnetic resonance. However, special circumstances prevented this from happening. I have spoken and written about this in detail, so there is no need to expand on it here.

In 1975 a new editor-in-chief had to be chosen again, and again I think it was resolved successfully—Boris Borisovich Kadomtsev was appointed. He was very attentive to the journal's needs and everything moved ahead well. Unfortunately, he died in 1998, also at the age of 69.

You see why I am stressing the age so much—nolens volens, I have to look at myself. I am already 92. Ergo.... Ah, well, I forgot to mention that I myself became the next



В.Л. Гинзбург — 124 статьи Э.В. Шпольский — 84 статьи Б.М. Смирнов — 74 статьи 5. Я.Б. Зельдович — 56 статей В.В. Власов — 53 статьи Я.А. Смородинский— 42 статьи А.М. Прохоров— 39 статей Б.Б. Кадомцев — 38 статей 10. Г. Розенберг — 38 статей С.А. Шорыгин — 38 статей 12. Н.С. Хлебников — 36 статей Л.Б. Окунь— 35 статей П.Л. Капица— 35 статей В.С. Вавилов — 34 статьи 16. Б.М. Болотовский — 32 статьи Е.Л. Фейнберг— 32 статьи Н.Н. Малов— 32 статьи И.М. Дремин — 31 статья 20. И.Л. Фабелинский — 29 статей

1. Т.О. Вреден-Кобецкая — 133 статьи

1. T.O. Vreden-Kobetskaya — 133 articles 2. V.L. Ginzburg — 124 articles 3. E.V. Shpol'skii — 84 articles 4. B.M. Smirnov — 74 articles 5. Ya.B. Zel'dovich — 56 articles 6. V.V. Vlasov - 53 articles 7. Ya.A. Smorodinskii — 42 articles 8. A.M. Prokhorov — 39 articles 9. B.B. Kadomtsev — 38 articles 10. G. Rozenberg — 38 articles 11. S.A. Shorygin — 38 articles 12. N.S. Khlebnikov — 36 articles 13. L.B. Okun' - 35 articles 14. P.L. Kapitza — 35 articles 15. V.S. Vavilov — 34 articles 16. B.M. Bolotovskii — 32 articles 17. E.L. Feinberg — 32 articles 18. N.N. Malov — 32 articles 19. I.M. Dremin — 31 articles

20. I.L. Fabelinskii — 29 articles

Vitaly Lazarevich Ginzburg in 1939 (the year of V L Ginzburg's maiden publication in *Uspekhi Fizicheskikh Nauk*). Since then, V L Ginzburg has become a veteran author of the journal; between 1939 and May 2009 he published 124 papers in *Uspekhi* (not counting the Personalia that he co-authored) and sits at the top of the list of authors who have published the most papers in *Uspekhi* Fizicheskikh Nauk (if we ignore those authors who have published – virtually monthly – brief bits of information in the Bibliography, News, and other sections. The list in the figure is that of authors in *Uspekhi Fizicheskikh Nauk* with the most publications in the journal (from the date of establishment of the journal to May 2009).



Title page of the journal *Uspekhi Fizicheskikh Nauk*, Vol. XXVIII, issue 1, 1946. This volume displayed for the first time the list of Editorial Board members, which did not change — officially — until 1964 (with the exception of the loss of S I Vavilov, who died). The Editorial Board consisted of Sergei Ivanovich Vavilov, Vladimir Iosifovich Veksler, Dmitrii Ivanovich Blokhintsev, and Sergei Tikhonovich Konobeevskii. Eduard Vladimirovich Shpol'skii was the Responsible Editor (Editor-in-Chief in the current editorial and publication parlance).



Title page of *Uspekhi Fizicheskikh Nauk*, Vol. 84, issue 1, 1964 presents the new composition of the Editorial Board confirmed by the Presidum of the USSR Academy of Sciences. The board consisted of Vitaly Lazarevich Ginzburg, Yakov Borisovich Zel'dovich, Boris Borisovich Kadomtsev, Leonid Veniaminovich Keldysh, Sergei Georgievich Suvorov (deputy Editor-in-Chief), Vladimir Aleksandrovich Ugarov, and Fedor Lvovich Shapiro. E V Shpol'skii was reappointed as Editor-in-Chief. Of the members of the Editorial Board of 1946, D I Blokhintsev, V I Veksler, and S T Konobeevskii kept their seats. The efforts of these Editorial Board teams brought *Uspekhi Fizicheskikh Nauk* to the position of the 4th highest impact factor (see p. 537).

Editor-in-Chief in 1998. And now that I have reached the age of 92, it would be natural to "call it a day" so to speak; you might say I am unable to work well enough any more. This is certainly not the place to discuss the future editor-in-chief. I nevertheless wish to say that I foresee no problem here. Why? Because we now have a plethora of very good physicists who could make successful Editors-in-Chief. Suffice it to mention my current associate editors Lev Petrovich Pitaevskii, Valerii Anatolievich Rubakov, Oleg Vladimirovich Rudenko. Any of the three is capable of replacing me in my capacity of chief editor and I hope that we shall resolve the situation soon enough. We need not spend any time discussing it here of course.

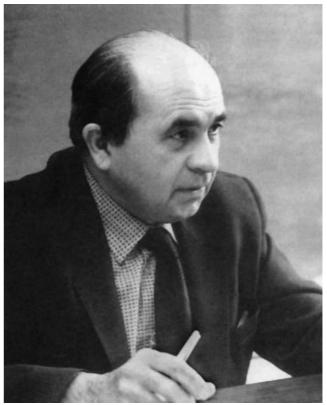
Now I wish to characterize the work of *Uspekhi Fizicheskikh Nauk* in recent years. It seems to me that everything is running as smoothly as possible. The role of Maria Sergeevna Aksent'eva in this is tremendous and everyone in this hall is aware of that—she is the engine behind the regular functioning of *Uspekhi Fizicheskikh Nauk* journal. We have subscribed each member of the Editorial Board to *Uspekhi Fizicheskikh Nauk* journal—this was just about my first action as Editor-in-Chief. I know for a fact that in times past some Editorial Board members never even opened an issue. Now every member of the Editorial Board—and many of those present today, I am sure—read the journal regularly, they know it appears regularly, that the same is true about the English edition; it seems to me the journal does what it was created to do well.

It is common knowledge that many people place great importance on the analysis of something known as the "impact factor" of a journal—too many people and too much importance in my opinion; this number characterizes how widespread the journal is, how important it is, and so on. I have to honestly confess that I have tried several times to figure out what this impact factor is, but on the whole failed to achieve clarity. The important thing is that the impact factor of Uspekhi Fizicheskikh Nauk journal is the highest among all physics journals in this country. In this sense, therefore, the journal enjoys wide recognition. In my opinion, the journal mostly functions normally. To tell you the truth, the staff editors are constantly dissatisfied: the papers portfolio is invariably too small for them. They would love to have a reserve of several issues. My opinion, however, is that the fact that we largely work on the fly, so to speak, that is, that our reserve is usually rather slim, is not bad at all. In fact, it is a very positive factor, since our articles never get stale. I felt shocked recently when browsing an issue of Nature and discovering that an article I knew about had been idling there for a year. This is unbelievable! A very interesting article on superconductivity lies on the shelf for a year. Can this be tolerated? We have nothing of the sort, of course. In this respect. I believe, the situation is good.

Now about how our journal works. We referee every article: this is the law, whoever the author. If the article is unquestionably bad, it is rejected, but if the referees only make some critical remarks and we feel ready to publish the paper, we send the paper to the author and suggest taking corrections into account. I need to mention in this connection that despite the very considerable time the journal has existed and after such a huge number of papers has been published, I do not remember a single case of someone seriously complaining about something.



Evgeny Konstantinovich Zavoiskii—Editor-in-Chief of the journal *Uspekhi Fizicheskikh Nauk* from 1975 to 1976.



Boris Borisovich Kadomtsev—Editor-in-Chief of the journal *Uspekhi Fizicheskikh Nauk* from November 1976 until his death on 19 August 1998.

However, sometimes we really put our collective foot in our mouth, and today's session is an example. Some considerable time ago, as early as last spring, we agreed that Mikhail Vissarionovich Sadovskii, member of our Editorial Board (you all know him, of course), should present a talk on new superconductors, iron-based instead of habitually copper-based. This is enormously interesting! The whole world simply jumped at it! This is a real problem, very much alive. We agreed that since this is something that Mikhail Vissarionovich is currently doing, he should address the audience at today's session. As indeed he will. However, at about this time we received two papers, dealing with the same topic, from other authors. What should we have done? Of course, we could have confessed that we were caught napping. What sort of action would be best? As a last resort, we could write to the two authors that we have or expect to have other papers on the same subject. This would not be the correct thing to do, I think. Indeed, Sadovskii's review was not in the editorial portfolio yet, we obviously could not demand it from him at that stage. Now we had two review papers and the third on the way. What was there to do? Referees approved both. I came to a decision, and I am ready to stand by it since I think it was a good one: we shall publish all three articles. The same issue where Mikhail Vissarionovich's talk was to appear

		'Physical'	Self-	Self- Citation Rate (B/A)	Total	'Physical' Citation Rate (A/D)	Number of Physics Journals	Impact
	Journal	Citations A	Citations	Rate (B/A)	Citations	Rate (A/D)	Citing	Factor
1.	Phys. Rev.	74224	17808	24.0	82664	89.8	113	3.679
2.	J. Chem. Phys.	27256	14396		54748		87	
3.	Phys. Rev. Lett.	23792	2432	52.8	26176	49.8	77	3.180 5.114
4.	Nucl. Phys.	15544	6012		16044			0.858
5.						96.8	46	
6.	Sov. Phys. JETP	15196	4564		16852	90.2	63	3.944
7.	Phys. Lett.	14320	1568		15740	91.0	57	1.654
	J. Appl. Phys.	12828	3364		21096	60.8	81	1.936
8.	Sov. Phys. Sol. St.	9612	4456		10420	92.2	38	2.046
9.	Nuovo Cimento	8692	1848		9768	89.0	42	0.527
10.	P. Roy. Soc. Lond.	7228	412		19156	37.7	91	2.998
11.	J. Physics	7196	1532		12724	56.6	68	1.405
12.	Zschr. Physik	5556	760		7036	79.0	74	1.536
13.	J. Phys. Soc. Japan	5236	1308	25.0	6932	75.5	58	1.045
* 14.	J. Amer. Chem. Soc.	5044			105228	4.8	40	5.859
15.	Acta Cryst.	4748	2788	58.7	11588	41.0	34	2.469
16.	Philosophical Mag.	4616	644		7696	60.0	63	2.251
17.	Rev. Mod. Phys.	4232	20	0.5	5412	78.2	65	4.508
18.	J. Phys. Chem. Sol.	4092	276	6.7	5676	72.1	47	2.073
19.	Phys. Stat. Sol.	4056	1960	48.3	5252	77.2	39	1.578
20.	Comptes Rendus	3928	1752	44.6	21888	17.9	49	0.780
21.	Phys. Fluids	3556	1224	34.4	5176	68.7	33	1.581
22.	Ann Physics	3368	144	4.3	4384	76.8	56	3.188
23.	Canad. J. Phys.	3312	596	18.0	5292	62.6	54	2.186
¥24.	J. Phys. Chem.	3240			18712	17.3	32	2,429
25.	Opt. Spectr. USSR	3096	1832	59.2	4200	73.7	25	1.331
26.	Appl. Phys. Lett	3092	576		5272	58.6	34	3.688
27.	J. Math. Phys.	3056	876		3792	80.5	42	0.492
28.	B. Amer. Phys. Soc.	3016	324		3532	85.4	34	0.156
29.	Physica	3016	552		3796	79.5	5.3	1.755
30.	Prog. Theor. Phys.	2956	1312		3348	88.3	31	1.513
31.	T. Faraday Soc.	2908	1056	36.3	11644	25.0	30	2.149
32.	Nucl. Instr. Meth.	2752	1468		3276	84.0	29	1.016
33.	JETP Lett.	2748	920		3024	90.9	22	2.240
34.	Sov. Phys. Tech. Phys.	2728	1524	55.9	3648	74.8	26	1.322
35.	Sov. J. Nucl. Phys.	2712	1852		2936	92.4	14	2.054
* 36.	I. Chem. Soc.	2516	1032	00.3	55912	4.5	24	3.123
37.	J. Opt. Soc. Amer.	2464	1016	41.2	6316	39.0	35	0.962
*38.	Nature	2452	1010	41.2	61240	4.0	66	2.244
39.	Zschr. Naturforsch.	2452	1228	50.1	8716	28.1	47	1.433
• -40.	Astrophys. J.	2260	1660	30.1	17032	13.3	28	4.972
+ 41.		2068			12404		42	0.572
* 42.	Dokl, Akad, Nauk USSR Rev. Sci. Instr.	1928	- 1	111	4892	16.7	39	0.868
* 43.				-				2.278
	Acta Metallurg.	1804			5216	26.9	24	
44.	Nucl. Sci. Eng.	1784	660	37.0	1940	92.0	15	1.290
45.	Sov. Phys. Usp.	1716	412	24.0	2536	67.7	19	4.930
46.	J. Fluid Mech.	1612	972	60.3	3848	41.9	20	2.376
47.	J. Polym. Sci.	1528	1016	66.5	11572	13.2	7	1.039
48.	Sov. Phys. Semicond.	1436	1012	70.5	1548	92.8	13	1.741
49.	Izv. Akad Nauk Fiz.	1404	560	39.9	1800	78.0	17	0.807
50.	J. Inorg. Nucl. Chem.	1380	836	60.6	5540	24.9	17	1.535

Page 189 of the 1979 book by the founder of the American Institute of Scientific Information (ISI) Eugine Garfield, who pioneered the concept of the science citation index and impact factor (IF) for a journal. The IF for *Uspekhi Fizicheskikh Nauk* e.g. in 2007, is the ratio of the number of citations to papers published in *Uspekhi Fizicheskikh Nauk* in 2006 and 2005 in all papers published in 2007 by those journals that the ISI database covers to the number of papers published by *Uspekhi Fizicheskikh Nauk* in 2005–2006. The table lists the data for the 50 most cited physics journals (out of the 188 physics journals included at the time in the ISI database) and gives calculated values of the IF for each journal.

— the main and the most detailed one — will also present two more reviews. The topic is indeed a hot one and it will be interesting to see what comes of it [see *UFN* 178 (12) 1243 (2008); *Phys. Usp.* **51** (12) 1201 (2008)].

Sometimes a completely nontrivial event happens. I wish to mention this too, since this may come useful in the future. Well, we received from Professor Chernin of Moscow State University a large paper on dark energy. I assume the people in this hall today are aware (although none of us knows much about dark energy) that this is one of the most relevant, burning issues of modern physics. I cannot even suggest what to compare it with, as we know neither the mechanism nor what it physically is. We were thus very pleased to accept the paper for publication and sent it to reviewers. The responses were highly critical. What was the best course of action here? I'll tell you what I did, and I am sure I was right. Do criticize me if you think differently and offer your opinions, but this is what we did: we forwarded the two most critical reviews to Chernin (there may have been a third one but that's a different story) - one from Valerii Anatolievich Rubakov and another from Vladimir Nikolaevich Lukash, also a well-known astronomer and cosmologist, and told him: "Here are two reviews, your paper is accepted, take into account what you wish. At the next stage we'll send your final version to these two reviewers and ask them to write what they think, but we won't send their opinions to referees, as otherwise the process would diverge." This is how we published it as a result:

**Table.** Impact factors (IF) and ratings of the journals *Uspekhi Fizicheskikh Nauk* [*Physics – Uspekhi —* English version of *UFN*], *JETP*, and *JETP Letters* in 1976 and 1990 – 2007, according to ISI data.

	Phys. Usp.		JE	TP	JETP Lett.		
Year	IF	Rating	IF	Rating	IF	Rating	
1976*	4.930	4	3.944	6	2.240	18	
1990	2.112	12	1.023	27	2.232	21	
1994	1.398	17	0.883	27	0.917	26	
1995	1.030	25	0.934	27	1.030	25	
1996	1.073	24	0.826	26	1.114	23	
1997	1.325	18	0.826	27	1.026	23	
1998	1.476	19	0.798	28	1.295	21	
1999	1.058	25	1.025	27	1.360	19	
2000	1.182	23	1.187	22	1.411	17	
2001	1.542	18	1.156	24	1.377	19	
2002	-	-	-	-	-	-	
2003	2.595	8	1.156	27	1.326	21	
2004	1.877	15	1.281	-	1.455	-	
2005	2.163	14	1.099	33	1.446	24	
2006	2.675	13	0.937	37	1.251	29	
2007	2.032	17	1.075	32	1.378	28	

\*The data are quoted from tables 9.36 and 9.37 of E Garfield's book first published in 1979 (see Eugine Garfield *Citation Indexing — Its Theory and Application in Science, Technology, and Humanities*, 2nd edn. (Philadelphia, ISI Press, 1983) p. 189, p. 191)

Chernin's review [see *UFN* **178** (3) 267 (2008); *Phys. Usp.* **50** (3) 253 (2008)] and the article by Rubakov and Lukash criticizing it [see *UFN* 178 (3) 301 (2008); *Phys. Usp.* **50** (3) 283 (2008)]. There were no complaints afterwards, so I consider this a very fair decision—not necessarily the standard path of resolving a difficult situation, but such cases are not very frequent.

There is something else I wish to add. One should not forget that Uspekhi Fizicheskikh Nauk is a journal for review articles: it was conceived this way and it has survived this way. Such a review journal should be a showcase of actual successes and not a place for detailed exposure of various untested hypotheses; let's face it, physics is huge, and Koz'ma Prutkov already in the mid-19th century inculcated into us that "what is unbounded cannot be embraced." Therefore, when another piece arrives that ponders a new interpretation of quantum mechanics, we reject it outright. In all honesty, there is a problem here. You know that in Soviet times modern physics (much of quantum mechanics and especially the theory of relativity, as I have already mentioned) was severely criticized, if not condemned. There were thus unending claims that this was idealism and so on and so forth. As a result, articles of this kind were simply not published. People abroad also quieted down on these matters, as far as I could see, and accepted the Copenhagen interpretation, although some small corrections do surface from time to time. We therefore dared to do this: we announced that anyone wishing to speak about the interpretation of quantum mechanics is welcome to send in their notes and we would print them without peer reviewing. In the long run, we received — I do not quite remember — ten letters or thereabouts, with tons of nonsense in them, if you ask me.







N B Brandt

Н.Б. Брандт, Н.И. Гівпбург «Влаявніє высокого дівлення на сверхпроводниває свойства метацлов (http://ufn.ru/ru articles/1965/3/c/)» 85 (3) (1965)

А.Н. Орлов, В.В. Кировнов «Моделирование на ЭВМ атомных конфигураций дофектов в металлах (http://ufn.ru/ru/articles/1984/2/b/в-144 (2) (1984) к тексту 15 5-64 л-г. к выотвария 708 гг-,

Д. Ныблетт, Дж. Унлыс «Внутренене трение в металлях», связанное с дисложащими (http://ufn.ru/ru/articles/1963/5/d/)» 80 (5) (1963) к тексту 12 996 (в.е. к анактапра 461 (е.)

А.Н. Орвевский, Б.М. Чихачев и фр. «О возможности пседедования релятивностеких эффектов с помещью молекулярных и атомных стандартов частоты (http://ufi.ru/ru/articles/1961/9/a/)» 75 (9) (1961) к текстру 11 371 от р-их авнотация 428 (р-и

В.Г. Повитовожий, В.Е. Антонов, И.Т. Белип «Съойства фаз высокого давления в системах метали-вопород (http://ufn.ur/untricles/1982/86/9-137 (8) (1982) к. темер 3 – 6 м. давления в системах метали-вопород (http://www.creepy 3 for  $m_{eff}$  and  $m_{eff}$ 

Ю. Румер «Молекулярная теория химитеской связи (http://ufn.ru/na/articles/1934/1/d/)» (1) (1934) к тексту 4 767 (в 1%), к авистация 560 (м).

T.B. Oryns «Φοραγια Stinurrelina  $E_0 = mc^2$ . He escèrca au l'ocnors Eor''' (http://ufn.ru/n/articles/2008/S/g/)» 178 541 (2008)  $E_0 = mc^2 + mc^2 +$ 

Popularity rating of papers placed on the site of *Uspekhi Fizicheskikh Nauk* (www.ufn.ru) in Russian. The number of hits requesting complete copies of papers in the months from October 2007 to May 2009 was calculated. Note the abrupt surge of interest in the review paper by N B Brandt and N I Ginzburg "Effect of high pressure on superconducting properties of metals" [*Usp. Fiz. Nauk* 85 (3) 485 (1965)], which coincided in time with the discovery of a new class of superconductors—iron-based materials [see, e.g., *Phys. Usp.* 179 (12) (2008)].

However, they were all published under the conditions as I explained. As a kind of summary, we also published a paper by Mikhail Borisovich Menskii. He holds a point of view that I consider extremely original: he supports the so-called Everett interpretation, in which, as you know, human conscience plays an enormous role. Well, a viewpoint is a viewpoint. I do not understand anything about it and do not share this view; still, Mikhail Borisovich is a highly qualified specialist, plus articles concerning this appeared in the literature before and some have appeared recently (by the way, the very well-known Wigner was a proponent of this interpretation). It is thus impossible to turn your back on it. Consequently, we published a large paper by Menskii but indicated in the editor's foreword that "we shall not publish further papers in this field until some sort of clarity is achieved" [see Usp. Fiz. Nauk 170 (4) 631 (2000), 171 (4) 437 (2001); Phys. Usp. 43 (4) (2000), Phys. Usp. 44 (4) (2001)]. This is the way one has to steer; Mikhail Borisovich seems to hold a grudge against me, but I consider this line justified. You see, these are profound thoughts, and they may promise an entire revolution in physics, but come what may, this revolution cannot be accomplished so abruptly, "on the fly". Well, this is how I see this situation.

The journal moves on, and does well, as I have already mentioned. And I hope that it will continue to do so. Well, we'll have to change the editor-in-chief, that's true, but this can only improve matters. Such is the situation we are in now. I hope the journal will flourish.

I wish to conclude with the following words. The activities of members of the Editorial Board have shrunk, and I may be partly to blame for this. I already said that we publish articles that people send us. In the past, however, we frequently commissioned papers. You come across something new, you request the right people to write an article. In a certain sense, I now lag behind in physics; I stopped commissioning articles, and the role of "drifting on by inertia" increased. At the same time, our Editorial Board is immensely powerful; it frightens me to think, as people say, how strong its members are! All members of the Board ought to think about these matters. And if they encounter something of special interest, the thing to do is to discuss it with the author and commission a paper. We are indeed capable of this. I do not really remember cases when we missed something truly interesting; we may have, of course, and obviously, we have to be vigilant to the extreme. I therefore request all members of the Editorial Board never to forget about their obligation—namely, to watch for things the journal has not exposed, discuss and agree on the matter, of course, and commission new papers; and propagandize Uspekhi Fizicheskikh Nauk! I am sure Uspekhi Fizicheskikh *Nauk* deserves a kind attitude from us all.

And especially do not forget that we are now living through some rather special phase of physics in Russia. Physics was in general the very poor relation for many years in connection with perestroika; you can't avoid recognizing it. Money was scarce, numerous people left seeking jobs abroad, and so on. We all know this. I have the impression now (it is difficult to be certain of course) that the "top echelons" have at last realized that this is unacceptable and have started taking some steps to promote the progress of physics in our country. What do I mean specifically? Money first, second and third, of course, as nothing is possible without a lot of money. However, compare these sums with what Americans spend, say, on the search for gravitational waves — millions of dollars, even now! The money allotted for the International



"March on! Towards the 100th anniversary of Uspekhi Fizicheskikh Nauk" — V L Ginzburg.

Thermonuclear Experimental Reactor (ITER) or, say, the Large Hadron Collider—it is a huge machine and also cost vast amounts of money and took many years to build. In that sense, we cannot compete, of course, but one has to take part, and this is what Russia does. I read somewhere, and I am very happy, that nearly a thousand Russian citizens are working on this collider in various roles. This is very good. Anyway, to make it brief, I wished to say that things have started moving, that more attention is being paid to physicists. This has led to raising the level of requirements expected of young people who can later be incorporated into the working force in physics. And it has become obvious that if physics enjoys

more attention, the journal becomes especially necessary. We must act accordingly with all this, and I do not doubt in the least that, as a result of our efforts, the journal will do its job properly, play the role is was created for. Well, in ten years' time it will have its hundredth anniversary. It would be fun to witness what occurs then! I won't see it of course.... But I hope that you who are present here today will attend the hundredth anniversary jubilee, I sincerely wish you do.

At the moment, however, we celebrate the 90th jubilee and, as you are aware, the agenda lists a whole range of talks that promise to be very interesting.