

A.N. Kolmogorov's Way to the International Mathematical Scene

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Mikhail Sokolov & Cyrill Titaev, Anthropological Forum vol. 19 (2013) of the Russian series.

(The journal is published since 2004 in Russian and in English in two separate series.)

The Imperial/Colonial model of Science

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- ▶ The global scientific community consists of a Metropole and multiple colonies.
- ▶ In the colonies actors have a choice between
 - ▶ recognising the supremacy of the Metropole and helping to exercise its power over the given province and
 - ▶ resisting by developing a “native” aka “aboriginal” (local) science not recognised by the Metropole.

Claims :

The Colonial model of science perfectly reflects recent academic policies adopted by some “progressive” Russian academic institutions such as the Russian Higher School of Economics.

It fails to account accurately for the structure of the global academic network albeit it represents some of its problematic features.

Moreover, it fails, generally, to serve as a useful guide in historical research.

But it may still serve well for understanding the academic policies in today’s Russia. It may also serve a starting point for understanding the recent history of these policies.

Andrei Nikolaevich Kolmogorov in the 1947



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- ▶ In 1910 enters Eugenia Repman experimental private gymnasia (community college) in Moscow;
- ▶ In 1918 plans to enter the Moscow University but has to work as a construction worker; enters the university in 1919 without exams;
- ▶ In 1921 finds a mistake in a public lecture of his professor Nikolai Luzin, the same year enters the Lusitania;

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- ▶ Upon the return from the trip in 1931 K. is appointed as professor in MSU.

I. Публикации трудов А. Н. Колмогорова

1923

Публикации в периодических изданиях и сборниках

1. Sur l'ordre de grandeur des coefficients de la série de Fourier—Lebesgue // Bull. Acad. pol. sci. Ser. A. 1923. P. 83—86.
2. Une série de Fourier—Lebesgue divergente presque partout // Fund. Math. 1923. Vol. 4. P. 324—328.

1924

Публикации в периодических изданиях и сборниках

3. Une contribution à l'étude de la convergence des séries de Fourier // Fund. Math. 1924. Vol. 5. P. 96—97.
4. Колмогоров А. Н., Селиверстов Г. А. Sur la convergence des séries de Fourier // C. r. Acad. sci. Paris, 1924. Vol. 178. P. 303—306.

1925

Публикации в периодических изданиях и сборниках

5. О принципе tertium non datur // Mat. сб. 1925. Т. 32, № 4. С. 646—667.
6. La définition axiomatique de l'intégrale // C. r. Acad. sci. Paris, 1925. Vol. 180. P. 110—111.

7. Sur la possibilité de la définition générale de la dérivée, de l'intégrale et de la sommation des séries divergentes // C. r. Acad. sci. Paris, 1925. Vol. 180. P. 362—364.
8. Sur les fonctions harmoniques conjuguées et les séries de Fourier // Fund. Math. 1925. Vol. 7. P. 24—29.
9. Колмогоров А. Н., Хинчин А. Я. Über Konvergenz von Reihen, deren Glieder durch den Zufall bestimmt werden // Mat. сб. 1925. Т. 32, № 4. С. 668—677.
10. The general theory of dynamical systems and classical mechanics // Mat. сб. 1925. Т. 32, № 4. С. 741—757.
11. Sur les bornes de la généralisation de l'intégrale. 2005 (не опубли.)

1926*Публикации в периодических изданиях и сборниках*

12. Колмогоров А. Н., Селиверстов Г. А. Sur la convergence des séries de Fourier // Atti Accad. naz. Lincei Rend. 1926. Vol. 3. P. 307—310.
13. Une série de Fourier—Lebesgue divergente partout // C. r. Acad. sci. Paris, 1926. Vol. 183. P. 1327—1329.

1927*Публикации в периодических изданиях и сборниках*

14. Колмогоров А. Н., Меньшов Д. Е. Sur la convergence des séries de fonctions orthogonales // Math. Z. 1927. Bd. 26, H. 2/3. S. 432—441.
15. Sur la loi des grands nombres // C. r. Acad. sci. Paris, 1927. Vol. 185. P. 917—919.

1928*Публикации в периодических изданиях и сборниках*

16. Об операциях над множествами // Мат. сб. 1928. Т. 35, № 3/4. С. 415—422.
17. Sur une formule limite de A. Khintchine // C. r. Acad. sci. Paris, 1928. Vol. 186. P. 824—825.
18. Sur une procédé d'intégration de M. Denjoy // Fund. Math. 1928. Vol. 11. P. 27—28.
19. Über die Summen durch den Zufall bestimmter unabhängiger Grö-

19. Über die Summen durch den Zufall bestimmter unabhängiger Größen // Math. Ann. 1928. Bd. 99. S. 309—319.

1929

Публикации в периодических изданиях и сборниках

20. Общая теория меры и исчисление вероятностей // Труды Коммунистической академии. Разд. математики. 1929. Т. 1. С. 8—21.
21. Современные споры о природе математики // Науч. слово. 1929. № 6. С. 41—54.
22. Bemerkungen zu meiner Arbeit «Über die Summen durch den Zufall bestimmter unabhängiger Größen» // Math. Ann. 1929. Bd. 102. S. 484—488.

23. Sur la loi des grands nombres // Atti Accad. naz. Lincei. Rend. 1929. Vol. 9, № 6. P. 470—474.
24. Über das Gesetz des iterierten Logarithmus // Math. Ann. 1929. Bd. 101. S. 126—135.

1930

Публикации в периодических изданиях и сборниках

25. Sur la loi forte des grands nombres // C. r. Acad. sci. Paris, 1930. Vol. 191. P. 910—912.
26. Sur la notion de la moyenne // Atti Accad. naz. Lincei Rend. 1930. Vol. 12, № 9. P. 388—391.
27. Untersuchungen über den Integralbegriff // Math. Ann. 1930. Bd. 103. S. 654—696.
28. Zur topologisch-gruppentheoretischen Begründung der Geometrie // Nachr. Ges. Wiss. Göttingen. Fachgr. 1 (Mathematik). 1930. H. 2. S. 208—210.

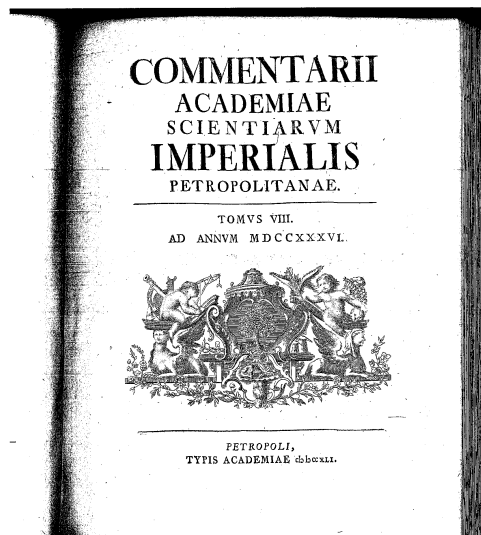
1931

Публикации в периодических изданиях и сборниках

29. Метод медианы в теории ошибок // Мат. сб. 1931. Т. 38, № 3/4. С. 47—50.
30. Eine Verallgemeinerung des Laplace Liapounoffschen Satzes // Изв. АН СССР. Отдел матем. и естествозн. 1931. № 7. С. 959—962.

Commentarii Academiae Petropolitanae (since 1729)

official journal of Russian Academy of Sciences founded in 1724 at the order of the emperor Peter the Great. Leonard Euler



Cf. Accademia dei Lincei (Lynx, 1603), L'Académie française (1634); Royal Society of London for Improvement of Natural Knowledge (1660), Königlich-Preußische Akademie der Wissenschaften (1700), American Academy of Arts and Sciences (1780, during the War of Independence)

All those institutions and the associated journals exist today in some form.

Mathematical Sbornik vol.1, n.1 (1866)

the first Russian mathematical journal ; cf. Das Journal für die reine und angewandte Mathematik (1826, Crelle Journal : the first periodical mathematical journal in the world), Mathematische Annalen (1868)



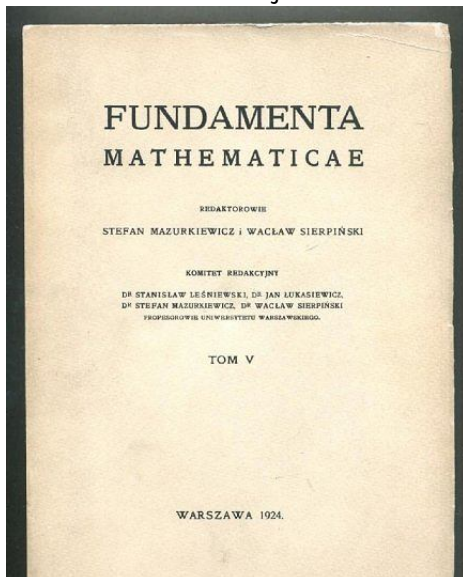
Устав Московского Математического Общества

публикация: Математический сборник, том 2 (1886)

§ 18. Рефераты дѣйствительныхъ членовъ должны быть какъ сообщаемы, такъ и печатаемы въ изданіяхъ Общества не иначе какъ на русскомъ языкѣ; но отъ членовъ корреспондентовъ и постороннихъ лицъ, не знающихъ русскаго языка, могутъ быть допускаемы статьи на общеупотребительныхъ европейскихъ языкахъ.

Fundamentae Mathematicae (since 1920)

the first *specialised* mathematical journal founded by Zygmunt



“Kiev Offensive” (wyprawa kijowska) of 1920

Capture of Kiev by Polish-Ukrainian forces on May 7, 1920. Józef Piłsudsky and Symon Petlura in Vinnycia in 1920 :



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Conclusions :

1. Academic institutions, generally, are more stable than the associated political regimes. They have a capacity to survive through very drastic political regime changes.
2. But the Imperial/Colonial model of Science of Sokolov&Titaev does not account for the real complexity of the academic institutional building even during the time of Great Empires.
3. This model hardly deserves to be endured and (re-)imposed, moreover under the appearance of “progressive reforme” (HSE against the Russian Academy). On the other hand, the older scientific institutions such as traditional Academies of Science do deserve preservation via continued reforms.

Conclusions :

4. The construal of multiple “regional sciences” (Russian/Soviet, Ukrainian, Chinese, what have you) by the assumed scientific Metropole is a wrong way to the decolonisation of scientific institutions and scientific communications. Science, Rationality and *La République des Lettres* is **one**, and it does not exclusively belong to any particular Metropole, any particular Colony, any particular institution, natural language or cultural tradition.

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5. The concept of regional science serves the reenforcement of imperial/colonial discourse in academic matters. A serious and attentive history of science does not need such a concept. Cf. Karl Popper 1972 on the Myth of the Framework. A study of history of science **in** Russia and **in** the Soviet Union does not requires the concepts of Russian Science and Soviet Science.

THANK YOU!