

Space physics and plasma physics (on the 100th anniversary of S.I. Syrovatskii's birth)

(Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, March 5, 2025)

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On March 5, 2025, in the conference hall of the Lebedev Physical Institute of the Russian Academy of Sciences (Moscow, Leninskii prospekt, 53), the Scientific Session of the Physical Sciences Division of the Russian Academy of Sciences (PSD RAS) “Space Physics and Plasma Physics” was held, dedicated to the 100th anniversary of the birth of Sergei Ivanovich Syrovatskii.

The agenda of the meeting announced on the PSD RAS website www.gpad.ac.ru included the following reports:

1. **Zybin K.P.** (P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow) “Small-scale dynamo of the magnetic field”;

2. **Zelenyi L.M.** (Space Research Institute of the Russian Academy of Sciences, Moscow) “Thin and ultrathin current sheets. A journey into Syrovatskii's singularity”;

3. **Bykov A.M.** (Ioffe Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg) “Supernovae as cosmic ray accelerators”;

4. **Kuznetsov V.D.** (Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of the Russian Academy of Sciences, Troitsk, Moscow) “Space research on the Sun”;

5. **Frank A.G.** (Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow) “Syrovatskii current sheets — theory and experiment.”

Reviews and articles written on the basis of the presented reports 1–5 are published further in this issue of *Uspekhi Fizicheskikh Nauk* (UFN) [*Physics Uspekhi*] (see [1–5]).

Thirteen articles by Sergei Ivanovich Syrovatskii published in the UFN (see translations in *Soviet Physics Uspekhi*) journal (including seven reviews [6–12]) can be found on the author's page of S.I. Syrovatskii on the UFN website (see ufn.ru/en/authors/11034/syrovatskii-s-i/). UFN (Sov. Phys. Usp.) also published an obituary of S.I. Syrovatskii [13] and reviews and articles based on reports presented at the Scientific Session of the Physical Sciences Division of the Russian Academy of Sciences in commemoration of the 85th anniversary of the birth of S.I. Syrovatskii [14–19].



Sergei Ivanovich Syrovatskii
(02.03.1925 – 26.09.1979)

References

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2. Zelenyi L M, Malova H V, Grigorenko E E, Popov V Yu, Tsareva O O, Leonenko M V “Thin and superthin current sheets: journey into the depths of Syrovatskii's singularity” *Phys. Usp.* **68** 759 (2025); “Tonkie i sverkh-tonkie tokovyie sloi: puteshestvie vglub' singulyarnosti Syrovatskogo” *Usp. Fiz. Nauk* **195** 807 (2025)
3. Bykov A M “Supernovae as sources of cosmic rays” *Phys. Usp.* **68** 785 (2025); “Sverkhnovye zvezdy kak istochniki kosmicheskikh lucheii” *Usp. Fiz. Nauk* **195** 835 (2025)
4. Kuznetsov V D “Space-based and extra-atmospheric studies of the Sun” *Phys. Usp.* **68** 807 (2025); “Kosmicheskie i vneatmosfernye issledovaniya Solntsa” *Usp. Fiz. Nauk* **195** 858 (2025)
5. Frank A G “Current sheets in plasma: from theory to experiment” *Phys. Usp.* **68** 823 (2025); “Tokovye sloi v plazme — ot teorii k eksperimentu” *Usp. Fiz. Nauk* **195** 875 (2025)

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13. Ginzburg V L, Kadomtsev B B, Keldysh L V, Logunov A A, Migulin V V, Slavatskii S A, Somov B V, Frank A G “Sergei Ivanovich Syrovatskii (Obituary)” *Sov. Phys. Usp.* **23** 274–275 (1980); “Pamyati Sergeya Ivanovicha Syrovatskogo” *Usp. Fiz. Nauk* **131** 73–74 (1980)
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* Reference added during English proofreading. (Editor’s note.)