

SHEVCHENKO SCIENTIFIC SOCIETY
COMMISSION OF MATHEMATICS



MATHEMATICAL BULLETIN

of SHEVCHENKO SCIENTIFIC SOCIETY

Volume 10

Lviv – 2013

Mathematical Bulletin of Shevchenko Scientific Society

Editorial Board

Editor-in-Chief: **Anatoly Samoilenko** (Institute of Mathematics NASU, Kyiv, Ukraine)

Managing Editor: **Taras Banakh** (Ivan Franko National University of Lviv, Ukraine)

Section Editors

Category Theory

Mykhailo Zarichnyi, Ivan Franko National University of Lviv
Volodymyr Lubashenko, Institute of Mathematics NASU, Kyiv
Oleh Nykyforchyn, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk

Discrete Mathematics and Logics

Oleh Verbitsky, Ya. Pidstryhach IAPMM NASU, Lviv, Humboldt-Universität zu Berlin, Germany
Leonid Plakhta, Ya. Pidstryhach IAPMM NASU, Lviv
Oleg Pikhurko, University of Warwick, Coventry, UK
Lyubomyr Zdomskyy, Universität Wien, Austria

Algebra and Number Theory

Orest Artemovych, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk
Volodymyr Nekrashevych, Texas A&M University, USA
Andriy Oliynyk, Taras Shevchenko National University of Kyiv

Topological Algebra

Taras Banakh, Ivan Franko National University of Lviv
Igor Protasov, Taras Shevchenko National University of Kyiv

Geometry and Topology

Taras Banakh, Ivan Franko National University of Lviv
Mykhailo Zarichnyi, Ivan Franko National University of Lviv
Sergiy Maksymenko, Institute of Mathematics NASU, Kyiv
Igor Mykytyuk, Ya. Pidstryhach IAPMM NASU, Lviv

Functional Analysis

Rostyslav Hryniv, Ya. Pidstryhach IAPMM NASU, Lviv
Andriy Zagorodnyuk, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk
Anatoly Plichko, Politechnika Krakowska, Poland

Complex Analysis

Yuri Zelinskyi, Institute of Mathematics NASU, Kyiv
Oleh Skaskiv, Ivan Franko National University of Lviv
Igor Chyzykyov, Ivan Franko National University of Lviv

Real Analysis and General Function Theory

Volodymyr Maslyuchenko, Yuriy Fedkovych Chernivtsi National University, Chernivtsi
Volodymyr Mykhaylyuk, Yuriy Fedkovych Chernivtsi National University, Chernivtsi

Differential Equations

Mykola Bokalo, Ivan Franko National University of Lviv
Yuriy Golovaty, Ivan Franko National University of Lviv
Petro Kalenyuk, Lviv Polytechnic National University, Lviv
Mykola Prytula, Ivan Franko National University of Lviv
Mykhailo Symotyuk, Ya. Pidstryhach IAPMM NASU, Lviv

Mathematical Physics

Petro Holod, NU «Kyiv Mohyla Academy», Kyiv
Igor Parasyuk, Taras Shevchenko National University of Kyiv
Volodymyr Pelykh, Ya. Pidstryhach IAPMM, Lviv
Anatolij Prykarpatski, Ivan Franko State Pedagogical University in Drohobych
Valery Samoilenko, T. Shevchenko National University of Kyiv

Topological Dynamics and Ergodic Theory

Alexandre Danilenko, B. Verkin ILTRE NASU, Kharkiv
Sergiy Kolyada, Institute of Mathematics NASU, Kyiv

Numerical Analysis

Roman Khapko, Ivan Franko National University of Lviv
Myroslav Kutniv, Lviv Polytechnic National University, Lviv

Probability Theory

Roman Bobryk, Jan Kochanowski University, Kielce, Poland
Bohdan Kopytko, Ivan Franko National University of Lviv
Mykola Portenko, Institute of Mathematics NASU, Kyiv

History of Mathematics

Volodymyr Maslyuchenko, Yuriy Fedkovych Chernivtsi National University, Chernivtsi
Anatoly Plichko, Politechnika Krakowska, Poland
Yaroslav Prytula, Ivan Franko National University of Lviv

Advisory Board

Nikolai Bogolyubov, Steklov Mathematical Institute, Moscow, Russia
Rostislav Grigorchuk, Texas A & M University, USA
Myroslav Horbachuk, Institute of Mathematics NASU, Kyiv
Yuriy Drozd, Institute of Mathematics NASU, Kyiv
Roman Kushnir, Ya. Pidstryhach IAPMM NASU, Lviv
Mykola Perestyuk, Taras Shevchenko National University of Kyiv
Mykola Pratsiovytyi, Institute of Mathematics NASU, Kyiv

Bohdan Ptashnyk, Ya. Pidstryhach IAPMM NASU, Lviv
Vitaly Sushchansky, Politechnika Śląska, Gliwice, Poland
Volodymyr Sharko, Institute of Mathematics NASU, Kyiv
Denis Blackmore, New Jersey Institute of Technology, USA
Maciej Błaszak, A. Mickiewicz University, Poznań, Poland
Lech Górniewicz, Uniwersytet Kazimierza Wielkiego, Bydgoszcz, Poland
Ed Tymchatyn, University of Saskatchewan, Canada

Address: 26 Vynnychenko Str., Lviv 79008, Ukraine
<http://journals.iapmm.lviv.ua/ojs/index.php/MBSSS>