



**Russian Foundation for Basic Research
Moscow State University Lomonosov
Academy of Sciences of the Republic of Bashkortostan
Sterlitamak branch of the Institute for Strategic Studies of the Republic of Bashkortostan
Sterlitamak branch of Bashkir State University**

**INTERNATIONAL SCIENTIFIC CONFERENCE
«DIFFERENTIAL EQUATIONS AND RELATED PROBLEMS»**

June 25 – 29, 2018, Sterlitamak, Russia

Dedicated to the jubilees (the 70th anniversary) of the Academician of the Russian Academy of Sciences Moiseyev E.I., Academician of the Academy of Sciences of the Republic of Bashkortostan Shagapov V.Sh. and Professor Soldatov A.P.

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SECTIONS OF THE CONFERENCE

1. Boundary value problems for differential equations and their applications.
2. Equations of mixed type.
3. Spectral theory of differential operators.
4. Inverse problems, control problems.
5. Mathematical problems of the mechanics of multiphase systems.
6. Mathematical modeling of complex processes and systems.
7. Theory of functions and functional analysis.
8. Actual problems of mathematical education in school and university.

FORMS OF PARTICIPATION IN THE WORK OF THE CONFERENCE

1. Speech with the plenary report.
2. Speech with the sectional report.
3. Presentation of the poster report.

Conference languages: Russian and English. By the beginning of the conference it is planned to publish the materials.

SUBMISSION OF MATERIALS

To participate in the work of the conference it is necessary to send the following materials to the organizing committee:

1. Application for participation in the conference on the attached form before January 1, 2018.
2. Abstracts by March 31, 2018 and they should be typed in a text editor LaTeX using only standard commands. Overriding commands is not allowed. It is also advisable to submit a corresponding pdf thesis file. The figures used in the text of the thesis should be in the format of eps. Abstracts must be compiled without errors and overflows. Please name the file with your surname (in Latin letters)!

The abstracts of the participants will be published in the proceedings of the conference. The collection will be placed in the RINC system.

The Organizing Committee reserves the right not to consider articles written in violation of the above rules!

RULES FOR THE DESIGN OF THE ABSTRACTS

The abstract should contain all the information given in the sample text (see below). The volume of the article should not exceed 3 full pages of the following format:

```
\documentclass[8pt,a5paper,titlepage,twoside]{article}
\usepackage[a5paper]{geometry}
\usepackage{mathtext}
\usepackage{graphicx}
\usepackage{graphics}
\usepackage{ifthen}
\usepackage{multicol}
\usepackage{amsmath,amssymb,amsthm,mathrsfs,amscd,truncate}
\usepackage[cp1251]{inputenc}
\usepackage[english,russian]{babel}
\usepackage[T2A]{fontenc}
\textheight=165mm
\textwidth=111mm
\voffset=2mm
\headsep=3mm
\footskip=6mm
\oddsidemargin=-4mm
\evensidemargin=-10mm
\begin{document}
\sloppy
\noindent{\sl УДК 517.95}
\begin{center}
\textbf{ОБРАТНЫЕ ЗАДАЧИ ДЛЯ ПАРАБОЛО-ГИПЕРБОЛИЧЕСКОГО УРАВНЕНИЯ}\
\medskip
\textbf{Михайлов П.Н.^1$, Сидоров С.Н.^2$}\
$^1$Стерлитамакский филиал Башкирского государственного университета, г.
Стерлитамак, Россия;\
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^2\$Стерлитамакский филиал Института стратегических исследований Республики Башкортостан, г. Стерлитамак, Россия;\

{\it mihaylovpn@mail.ru, stsid@mail.ru}

\end{center}

\textit{На основе прямой начально-граничной задачи поставлены и изучены обратные задачи по определению сомножителей правых частей уравнения смешанного парабола-гиперболического типа, зависящих от времени. На основании теории интегральных уравнений доказаны соответствующие теоремы единственности и существования решений обратных задач.}

\textit{Ключевые слова: уравнение смешанного парабола-гиперболического типа, обратная задача, единственность, существование, ряд, малые знаменатели, интегральные уравнения.}

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\begin{center}

\textbf{INVERSE PROBLEMS FOR THE PARABOLIC-HYPERBOLIC EQUATION}\

\medskip

\textbf{Mihaylov P.N.^1\$, Sidorov S.N.^2\$}\

^1\$ Sterlitamak branch of Bashkir State University, Sterlitamak, Russia; \

^2\$ Sterlitamak Branch of the Institute for Strategic Studies of the Republic of Bashkortostan, Sterlitamak, Russia;\

{\it mihaylovpn@mail.ru, stsid@mail.ru}

\end{center}

\textit{On the basis of a direct initial boundary value problem, inverse problems are formulated and studied to determine the factors of the right-hand sides of the mixed parabolic-hyperbolic type equation that depend on time. On the basis of the theory of integral equations, the corresponding uniqueness and existence theorems for solutions of inverse problems are proved.}

\textit{Key words: equation of mixed parabolic-hyperbolic type, inverse problem, uniqueness, existence, series, small denominators, integral equations.}

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Further the main text of the theses of the report

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Работа выполнена при финансовой поддержке РФФИ (проект №).

\smallskip

\begin{center}

\textbf{СПИСОК ЛИТЕРАТУРЫ} %(In the original language)% \textbf{BIBLIOGRAPHY}

\end{center}

1. {\it Сабитов~К.Б.} {Прямые и обратные задачи для уравнений смешанного парабола-гиперболического типа. М.: Наука, 2016. 272 с.}

2. {\it Сабитов~К.Б., Сидоров~С.Н.} {Обратная задача для вырождающегося парабола-гиперболического уравнения с нелокальным граничным условием // Известия Вузов. Математика. 2015. №~1. С.~46--59.}

\end{document}

The name of the electronic file must match your name in English transcription, _number section, extension .tex (Sidorov4.tex). The application and the text of the abstract (tex and pdf files) should be sent to the address: konfer2018@mail.ru. The possibility of publishing abstracts will be decided by the program committee of the conference.

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1. Full name of the author (authors) (in full) (in Russian and English).
2. The title of the article (in Russian and in English), indicating the subject heading (UDC).
3. Annotation to the article (in Russian and English).
4. Keywords to the article (in Russian and English).
5. Conference section (specify section number).
6. Place of work of the author (authors) (country, city, organization) (in Russian and English).
7. Degree, academic title, position of the author (authors) (without abbreviations).
8. Address for correspondence (E-mail, contact phone numbers).
9. Date " ____ " _____ 2017

The address of the organizing committee of the international scientific conference:

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Inquiries by phone:

8 (3473) 20-59-70; 8 (987) 143-98-18

Conference site: <http://isirb.ru/2017/10/sterlitamakskij-filial-isi-rb-v-2018-godu-provedet-nauchnyu-konferentsiyu-matematikov/>

E-mail: konfer2018@mail.ru

Additional information about the conference will be provided in the second letter.