

Document details

[< Back to results](#) | 1 of 1[Export](#) [Download](#) [Print](#) [E-mail](#) [Save to PDF](#) [Add to List](#) [More... >](#)[Full Text](#) [View at Publisher](#)

Journal of Physics: Conference Series

Volume 949, Issue 1, 2 January 2018, Article number 012024

4th International Conference on Mathematical Applications in Engineering 2017, ICMAE 2017; Faculty of Engineering, International Islamic University Malaysia Kuala Lumpur; Malaysia; 8 August 2017 through 9 August 2017; Code 133244

Uniform Convergence of the Eigenfunction Expansions of Distributions Associated with the Polyharmonic Operator on Closed Domain (Conference Paper)

Rakhimov, A.^a [✉](#), Mohd Aslam, S.N.A.^b [✉](#)^aDepartment of Science, Kulliyah of Engineering, International Islamic University Malaysia, Jalan Gombak, Kuala Lumpur, Malaysia^bInstitute for Mathematical Research (INSPEM), Universiti Putra Malaysia, UPM Serdang, Selangor, Malaysia

Abstract

[View references \(20\)](#)

In the solving the boundary value problems of equations of mathematical physics in bounded domains it is important to adjust the solution on the closed domain. This leads to the investigation of convergence and sumability problems near the boundary of the domain. In the present paper we study this problem for the eigenfunction expansions associated with the polyharmonic operator. © Published under licence by IOP Publishing Ltd.

Indexed keywords

Engineering controlled terms: Boundary value problems

Compendex keywords: Bounded domain Eigenfunction expansions Mathematical physics
Uniform convergence

Engineering main heading: Eigenvalues and eigenfunctions

Funding details

Funding number	Funding sponsor	Acronym
FRGS14-142-0383	International Islamic University Malaysia	IUM

Funding text

This research has been supported by the IUM Fundamental Research Grant Scheme, FRGS14-142-0383.

ISSN: 17426588

Source Type: Journal

Original language: English

DOI: 10.1088/1742-6596/949/1/012024

Document Type: Conference Paper

Volume Editors: Ural B., Rakhimov A., Daoud J.I., Saburov K., Chowdhury M.S.H.

Sponsors:

Publisher: Institute of Physics Publishing

Metrics [?](#)

0 Citations in Scopus

0 Field-Weighted Citation Impact

PlumX Metrics [v](#)

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert >](#)[Set citation feed >](#)

Related documents

The uniform convergence of the eigenfunctions expansions of the biharmonic operator in closed domain



Anvarjon, A. , Siti Nor Aini, M.A. , Siti Fatimah, A.Z. (2017) *Journal of Physics: Conference Series*

Equiconvergence in Summation Associated with Elliptic Polynomial

Fargana, A. , Rakhimov, A.A. , Khan, A.A. (2018) *Journal of Physics: Conference Series*

On the localization eigenfunction expansions associated with the schrodinger operator

Rakhimov, A.A. (2013) *Middle East Journal of Scientific Research*[View all related documents based on references](#)[Find more related documents in Scopus based on:](#)[Authors >](#) [Keywords >](#)

All [Export](#)  [Print](#)  [E-mail](#) [Save to PDF](#) [Create bibliography](#)

-
- 1 Ilin, V.A.
On the uniform convergence of expansions in eigenfunctions for summation in the order of the eigenvalues
(1957) *Dokl. Akad. Nauk SSSR*, 114, pp. 698-701. Cited 7 times.
-
- 2 Alimov Sh, A., Ilin, V.A.
Spectral decompositions corresponding to an arbitrary nonnegative selfadjoint extension of Laplace's operator
(1970) *Dokl. AN SSSR*, 193, pp. 9-12. Cited 8 times.
-
- 3 Moiseev, E.
The uniform convergence of certain expansions within a closed domain
(1977) *Dokl. Akad. Nauk SSSR*, 233, pp. 1042-1045. Cited 5 times.
1042-45
-
- 4 Eskin, G.
Asymptotics near the boundary of spectral functions of elliptic self-adjoint boundary problems

(1975) *Israel Journal of Mathematics*, 22 (3-4), pp. 214-246. Cited 7 times.
doi: 10.1007/BF02761591

[View at Publisher](#)
-
- 5 Rakhimov, A.A.
About uniform convergence of the spectral decomposition for the functions from Nikolskii classes in closed domain
(1987) *VINITI*, p. 17. Cited 2 times.
1564-B87
-
- 6 Rakhimov, A.A.
On uniform convergence of spectral resolutions of a continuous function in a closed domain
(1987) *Izvestiya Akademya Nauk UZSSR*, 6, pp. 17-22. Cited 2 times.
-
- 7 Alimov Sh, A., Rakhimov, A.A.
On the uniformly convergence of spectral expansions in a closed domain
(1986) *Dokl. Acad Nauk UzSSR*, 10, pp. 5-7.
-
- 8 Rakhimov, A.A., Zakariya, K.
On an Estimation of Eigenfunctions of Schrödinger's operator on a closed domain
(2010) *MathDigest. Bulletin of Universiti Putra Malaysia*, pp. 1-4.
June Edition
-
- 9 Rakhimov, A.A., Zakariya, K., Alikhan, N.
Uniform convergence spectral expansions connected with Schrodinger's operator of continuous function on a closed domain
J. the Nucleus, 2010, pp. 261-265.
-

10 Triebel, H.
The uniform convergence of spectral expansions of the Laplace operator on closed $\Omega \subset \mathbb{R}^2$
(1999) *Wiley - Science*, pp. 1-532.
Jan 6

11 Alimov, Sh.A., Rakhimov, A.A.
Localization of spectral expansions of distributions in a closed domain
(1997) *Differential Equations*, 33 (1), pp. 80-82. Cited 5 times.

12 Rakhimov, A.A.
On the Fourier series of continuous functions
(2014) *Proceedings of USA-Uzb Conference on Mathematical Physics, Californian State University, Fullerton*, pp. 1-3.
May

13 Alimov, Sh.A., Rakhimov, A.A.
Localization of spectral expansions of distributions
(1996) *Differential Equations*, 32 (6), pp. 798-802. Cited 10 times.

14 Rakhimov, A.A.
On the summability of multiple trigonometric fourier series of distributions
(2000) *Doklady Mathematics*, 62 (2), pp. 163-165. Cited 4 times.

15 , 374, pp. 20-22.
translation from Dokl. Akad. Nauk, Ross. Akad. Nauk

16 Rakhimov, A.A.
Localization conditions for spectral decompositions related to elliptic operators from the class A_r
(1996) *Mathematical Notes*, 59 (3-4), pp. 298-302. Cited 4 times.
[View at Publisher](#)

17 , 59, pp. 421-427.
translation from Mat. Zametki

18 Rakhimov, A.A.
Spectral decompositions of distributions from negative Sobolev classes
(1996) *Differential Equations*, 32 (7), pp. 1011-1013. Cited 4 times.

19 Rakhimov, A.A.
On the localization of the riesz means of multiple fourier series of distributions
(2011) *Abstract and Applied Analysis*, 2011, art. no. 731249. Cited 3 times.
doi: 10.1155/2011/731249
[View at Publisher](#)

- 20 Rakhimov, A.A.
On the uniform convergence of the Fourier series on a closed domain
(2015) *Eurasian Mathematical Journal*, 8, pp. 60-69. Cited 2 times.

© Copyright 2018 Elsevier B.V., All rights reserved.

< Back to results | 1 of 1

^ Top of page

About Scopus

What is Scopus
Content coverage
Scopus blog
Scopus API
Privacy matters

Language

日本語に切り替える
切换到简体中文
切换到繁體中文
Русский язык

Customer Service

Help
Contact us

ELSEVIER

[Terms and conditions](#) [Privacy policy](#)

Copyright © 2018 Elsevier B.V. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

Cookies are set by this site. To decline them or learn more, visit our [Cookies page](#).

 RELX Group™