

Year: 2020

Vol.: 97

Fasc.: 3-4

Title: On the almost everywhere convergence of multiple Fourier series of square summable functions

Author(s): Ushangi Goginava and Giorgi Oniani

We prove that if the lacunary partial sums of the Fourier series of every square summable function concerning each one-dimensional orthonormal system Φ_1, \dots, Φ_d converge almost everywhere, then the product system $\Phi_1 \times \dots \times \Phi_d$ also has a similar property for a quite general type of partial sums.

Address:

Ushangi Goginava
Department of Mathematical Sciences
United Arab Emirates University
P. O. Box No. 15551
Al Ain, Abu Dhabi
United Arab Emirates

Address:

Giorgi Oniani
Department of Mathematics
Akaki Tsereteli State University
59 Tamar Mepe St.
Kutaisi 4600
Georgia