

ON A LINEAR PARTIAL DIFFERENTIAL EQUATION OF THE HIGHER ORDER IN TWO VARIABLES WITH INITIAL CONDITION WHOSE COEFFICIENTS ARE REAL-VALUED SIMPLE FUNCTIONS

G. Pantsulaia* and G. Giorgadze**

*Iv. Javakhishvili Tbilisi State University, I.Vekua Institute of Applied Mathematics, Tbilisi, Georgia,
gogipantsulaia@yahoo.com

**Georgian Technical, Tbilisi, Georgia, g.giorgadze@gtu.ge

By using the method developed in the paper [1], it is obtained a representation in an explicit form of the weak solution of a linear partial differential equation of the higher order in two variables with initial condition whose coefficients are real-valued simple step functions.

References

1. Pantsulaia, G.R., Giorgadze G.P.: On some applications of infinite-dimensional cellular matrices, *Georg. Inter. J. Sci. Tech., Nova Science Publishers*, **3(1)** (2011), 107-129.
2. Pantsulaia, G.R., Giorgadze G.P.: On a Linear Partial Differential Equation of the Higher Order in Two Variables with Initial Condition Whose Coefficients are Real-valued Simple Step Functions, *J. Partial Diff. Eqs.* **29(1)** (2016), 1-13.