Some Multi–dimensional Modified G- and H-Integral Transforms on $\mathcal{L}_{\overline{v},\overline{r}}$ -Spaces

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Abstract

This paper is devoted to the study of three classes of multidimensional integral transformations with Fox' *H*-function and the Meijer's *G*-function in kernels in weighted spaces integrable functions in the domain $R_{n+}=R_{1+}\times R_{1+}\times\cdots\times R_{1+}R+\text{?}=R+1\times R+1\times\cdots\times R+1$. Mapping properties such as the boundedness, the rang, the representation and the inversion of the considered transforms are established.

Keywords

- **Multidimensional integral transformations with Meijer's *G*-function and Fox' *H*-function in the kernels**
- **Multidimensional Mellin transform**
- **Weighted space of summable functions**
- **Fractional integrals and derivatives**

MSC

- **Primary 44A30**
- **Secondary 33C60**
- **35A22**

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