

**On recovering convolutional perturbation of the Sturm-Liouville operator from three spectra**

**Научный руководитель – Шкаликов Андрей Андреевич**

*Сивкин Владимир Николаевич*

*Аспирант*

Московский государственный университет имени М.В.Ломоносова,  
Механико-математический факультет, Кафедра теории функций и функционального  
анализа, Москва, Россия

*E-mail: sivkin96@yandex.ru*

In the recent works, there is an interest for Sturm-Liouville operator perturbed by convolution. However, there are no results on simultaneous reconstruction of both integral and differential terms starting from spectral data. In the current work we give the first formulas for local reconstruction of both components of Sturm-Liouville operator with convolution starting from three spectra.

**Keywords:** Integro-differential operator, nonlocal operator, convolution, inverse spectral problem, Sturm-Liouville equation, Hardy operator.