



Spectral functions of products of selfadjoint operators

Tomas Ya. Azizov, Mikhail Denisov, Friedrich Philipp

(Submitted on 8 Jul 2011 (v1), last revised 11 Jul 2011 (this version, v2))

Given two possibly unbounded selfadjoint operators A and G such that the resolvent sets of AG and GA are non-empty, it is shown that the operator AG has a spectral function on \mathbb{R} with singularities if there exists a non-zero polynomial p such that the symmetric operator $Gp(AG)$ is non-negative. This result generalizes a well-known theorem for definitizable operators in Krein spaces.

Subjects: **Spectral Theory (math.SP)**

MSC classes: 47A11, 47B50

Cite as: **arXiv:1107.1618v2 [math.SP]**

Submission history

From: Friedrich Philipp [[view email](#)]

[v1] Fri, 8 Jul 2011 12:20:23 GMT (21kb)

[v2] Mon, 11 Jul 2011 12:15:10 GMT (21kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.SP

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1107](#)

Change to browse by:

[math](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

