

Choie, YoungJu; Lee, Min Ho

Notes on Rankin-Cohen brackets. (English) Zbl 1244.11039

Ramanujan J. 25, No. 1, 141-147 (2011).

Summary: The Rankin-Cohen product of two modular forms is known to be a modular form. The same formula can be used to define the Rankin-Cohen product of two holomorphic functions f and g on the upper half-plane. Assuming that this product is a modular form, we prove that both f and g are modular forms if one of them is. We interpret this result in terms of solutions of linear ordinary differential equations.

MSC:

11F11 Holomorphic modular forms of integral weight

11F12 Automorphic forms, one variable

Cited in 1 Document

Keywords:

modular forms; Rankin-Cohen brackets

Full Text: [DOI](#)

References:

- [1] Berndt, B., Kohlen, W., Ono, K.: The life and work of R. A. Rankin (1915–2001). Ramanujan J. 7, 9–38 (2003), Rankin Memorial Issue · [Zbl 1039.01011](#) · [doi:10.1023/A:1026214305402](#)
- [2] Cohen, P.B., Manin, Y., Zagier, D.: Automorphic pseudodifferential operators. In: Algebraic Aspects of Nonlinear Systems, pp. 17–47. Birkhäuser, Boston (1997) · [Zbl 1055.11514](#)
- [3] Stiller, P.: Special values of Dirichlet series, monodromy, and the periods of automorphic forms. Mem. Am. Math. Soc. 49, iv+116 (1984) · [Zbl 0536.10023](#)
- [4] Zagier, D.: Modular forms and differential operators. Proc. Indian Acad. Sci., Math. Sci. 104, 57–75 (1994) (English summary), K. G. Ramanathan Memorial Issue · [Zbl 0806.11022](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.