

VANISHING OF TOR OVER FIBER PRODUCTS

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Abstract: Let (S, \mathfrak{m}, k) and (T, \mathfrak{n}, k) be local rings, and let R denote their fiber product over their common residue field k . Inspired by work of Nasseh and Sather-Wagstaff [2], we explore consequences of vanishing of $\mathrm{Tor}_m^R(M, N)$ for various positive integers m , where M and N are finitely generated R -modules. This talk is based on [1].

Keywords: fiber product, Tor

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References

- [1] T. H. Freitas, V. H. Jorge Pérez, R. Wiegand, and S. Wiegand, Vanishing of Tor over fiber products, *Proc. Amer. Math. Soc.*, to appear.
- [2] S. Nasseh and S. Sather-Wagstaff, Vanishing of Ext and Tor over fiber products, *Proc. Amer. Math. Soc.*, **145** (2017), no. 11, 4661-4674.