

No semiconjugacy to a map of constant slope

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The talk is based on the joint work with Samuel Roth.

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We study countably piecewise continuous, piecewise monotone interval maps. We establish a necessary and sufficient criterion for the existence of a nondecreasing semiconjugacy to a map of constant slope in terms of the existence of an eigenvector of an operator acting on a space of measures. Then we give sufficient conditions under which this criterion is not satisfied. Finally, we give examples of maps not semiconjugate to a map of constant slope via a nondecreasing map. Our examples are continuous and transitive.