

# OPTIMISATION OF STURM-LIOUVILLE DETERMINANTS

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Consider the laplacian + potential operator on the circle, and try to optimise its “functional” determinant wrt. essentially bounded potentials. I will show that this question is related to the spectral zeta function, to a particular dynamics on  $SL(2, R)$ , and to bilinear optimal control. Joint work with Y. Chitour, P. Freitas et Y. Privat.

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