1052-34-232   **Matthias Lesch**, Department of Mathematics, University of Bonn, Endenicher Allee 60, 53115 Bonn, Germany, and **Boris Vertman*** (`vertman@math.uni-bonn.de`), Department of Mathematics, University of Bonn, Endenicher Allee 60, 53115 Bonn, Germany. *The regular-singular Sturm-Liouville operators and their zeta-determinants.*

Recent advances in the computation of zeta-determinants for Laplace-type operators with specific regular-singular potentials of model type and general boundary conditions at the singularity have been made by Klaus Kirsten, Paul Loya, and Jinsung Park. A formula for zeta-determinants for a general class of regular-singular potentials, however only for specific boundary conditions at the singular end, is due to Matthias Lesch.

This poses the question whether appropriate results can also be achieved for Sturm-Liouville operators with general regular-singular potentials and general boundary conditions. We answer this question affirmatively and provide a formula for the zeta-determinant in terms of the Wronski-determinant of the boundary value problem, generalizing the earlier results of Lesch and Kirsten-Loya-Park. (Received August 28, 2009)