## ON A CERTAIN GROUP OF LINEAR SECOND-ORDER DIFFERENTIAL OPERATORS OF THE HILL-TYPE

## JAROSLAV BERÁNEK, JAN CHVALINA

**ABSTRACT.** The Hill differential equation often occurs in physical, technical and astronomical topics, in particular in modelling connected with vibrations of mechanical systems. It is a special equation in Jacobi form investigations of which is motivated by concrete modelling time functions. In the contribution there is also established isomorphism between a certain group of Hill type differential operators and the subgroup of the group of third order differential operators with constant coefficients.

**KEY WORDS:** group, binary operation, differential equation, differential operator

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## Authors' Addresses

Doc. RNDr. Jaroslav Beránek, CSc. Department of Mathematics Faculty of Education Masaryk University Poříčí 7, 603 00 Brno, Czech Republic e-mail: beranek@ped.muni.cz

Prof. RNDr. Jan Chvalina, DrSc. Department of Mathematics Faculty of Electrical Engineering and Communication University of Technology Technická 8, 616 00 Brno, Czech Republic e-mail: chvalina@feec.vutbr.cz

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