TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

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IAP-SEMINAR

ANNOUNCEMENT

Date: **Tuesday, 2.2.2016**
Time: **16:00 p.m.**
Location: **Technische Universität Wien, Institut für Angewandte Physik, E134** yellow tower „B“, 5th floor, Sem.R. DB gelb 05 B (room number DB05L03) 1040 Wien, Wiedner Hauptstraße 8-10

Lecturer: **Dr. Aleksandar Marinkovic**
Machine Design Department, University of Belgrade, Mechanical Engineering Faculty, Belgrade/Serbia

Subject: **Tribological aspects of ballroom dance with energy consumption analysis**

Abstract: Tribology phenomena are obviously present and have significant importance in most of human activities, processes and actions. This research presents an attempt aimed to dealing with some basic concepts in study of tribology aspects in ballroom dancing. Analysing a couple of Standard and Latin ballroom dances, basic idea is to make approximate calculation of friction forces and torques and their influence on foot floor interface during the dance. Author take Viennese Waltz with also couple of other typical from standard and latin group of dances, where the concept and methodology of friction calculation has been performed. Besides the approximate calculation of friction, this paper attends to measure and analyse complete energy consumption during the dancing as a human activity. This could be done by making several experiments where total energy loss in ballroom dance used to be measured. In combination with friction loss calculations, results of those experiments drive up to some conclusions, among others the impact of friction losses in total energy consumption in doing corresponding dance. This topic could be interesting base for some further investigations such also for floors and shoes manufacturers aimed to make an optimal product for requested human activity. Clear objective is to reduce energy consumption from one side, but also to prevent possible undesirable slips from another side.

Keywords: ballroom dance; foot-floor interface; friction coefficient; energy consumption

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All interested colleagues are welcome to this seminar lecture
(45 minutes presentation followed by discussion).

P. Mohn e.h.
(SeminarChairperson)

G. Störi e.h.
(LVA-Leiter)