

# **PerPot Individual Anaerobe Threshold Marathon Scheduling**

*Jürgen Perl<sup>1</sup>, Stefan Endler<sup>2</sup>*

*<sup>1</sup>Mainz, Germany, D-55124*

*<sup>2</sup>University of Mainz, Germany, D-55099*

## **Abstract**

Today an optimization of workout units and the competitions is more important than ever. That applies especially for amateur athletes, who practice beside their normal work. An optimization with the modern lactate analysis is too expensive and not practical for this group of athletes. In this paper we will present a model based alternative, called PerPot. By means of simulation, workout units and competitions can be optimized using only the heart rate profile and the speed profile of the athletes. Furthermore, the individual anaerobic threshold (IAT) can be simulated. Our results show a high correspondence between the athletes' actual (half-) marathon finishing times and the PerPot-simulated results.

**KEYWORDS: ENDURANCE SPORTS, HEART RATE, PERFORMANCE, SIMULATION**