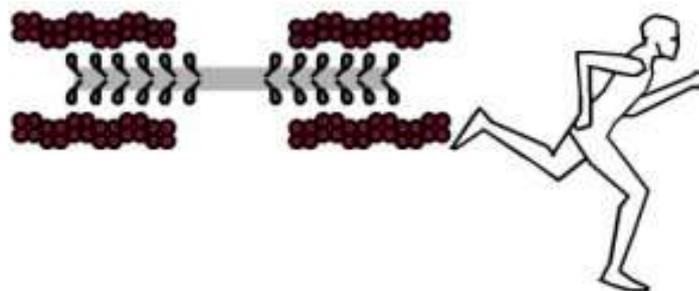


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# Scientific experiments to estimate energy expenditure using a new in-ear sensor

Cooperation project of the company cosinuss and Exercise Biology (TUM)

## Master thesis in sports science

**Start:** as soon as possible

### Project description

In this pilot project, data should be recorded with the new sensor (Cosinuss °Two), a polar chest strap and a mobile spirometry to establish algorithms for energy expenditure in the laboratory and under real conditions of hiking and other activities of daily living.

Main research questions:

- Is it possible estimate energy expenditure from accelerometry and heart rate data of an in-ear sensor?
- Are the experiments in the lab comparable with the field tests?

### Requirements

Interested in modern techniques and data analysis.

### Supervision

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