



# LFT-päivät Kuopiossa 22-23.2.2024

Medical Physics and Medical Engineering Days in Kuopio 2024

*The Finnish Society for Medical Physics and Medical Engineering organizes an annual event for students, researchers and companies in our field, Medical Physics and Engineering (LFT) Days. In 2024, the event will be held in Kuopio on February 22-23 in auditorium MS302 on the 3rd floor of the Medistudia building (Yliopistonrinne 3, 70210 Kuopio).*

*Lääketieteellisen fysiikan ja tekniikan yhdistys järjestää vuosittain alamme opiskelijoille, tutkijoille ja yrityksille suunnattua tapahtumaa, lääketieteellisen fysiikan ja tekniikan (LFT) päiviä. Vuonna 2024 tapahtuma pidetään Kuopiossa helmikuun 22.-23. päivinä Medistudia-rakennuksen 3 krs auditoriossa MS302 (Yliopistonrinne 3, 70210 Kuopio).*

Day 1: Examples of LFT Research in Kuopio, company presentations and **MSc poster competition**

Day 2: Presentations on PhD research projects

## Day 1: Thursday 22.2.2024, Medistudia, MS302

**08:30 Coffee, registration & MSc poster setup**

**09:00 Opening by the Chairman of LFT Society** – Simo Särkkä

**09:05 Greetings from the dean** – Kari Lehtinen

**09:10 Local event information** – Mikko Nissi, Petri Tanska

**09:15 Medical technology research at the University of Eastern Finland** (chair: Janne Mäkelä)

09:15 Rami Korhonen, *Musculoskeletal Diseases Research Community*

09:30 Pasi Karjalainen, *Human motion analysis in rehabilitation and performing arts*

09:45 Salla Hietakoste, *In the heart of sleep research*

10:00 Isaac Afara, *Applied biospectroscopy for tissue characterization: from research towards clinical translation*

10:15 Henri Korkalainen, *Machine learning in radiotherapy*

10:30 Olli Gröhn, *Magnetic resonance imaging research*

10:45 Ville Kolehmainen, *Inverse problems in medical physics and engineering*

**11:00 Break (15 min)**

**11:15 Poster competition: 3 min MSc poster competition power pitch, room MS302**

**12:15 Lunch (at own cost, Food & Co restaurant Canthia, Canthia building)**

**13:00 Annual meeting of the LFT Society, room MS301**

**14:00 Company presentations, session 1** (chair: Atte Eskelinen)

14:00 Brainlab AG (online)

14:15 MVision AI Oy

14:30 Siemens Healthineers Oy

14:45 Nexstim Oy (video)

**14:50 Coffee break (40 min) & MSc poster viewing, Medistudia lobby**

**15:30 Company presentations, session 2** (chair: Isaac Afara)

15:30 Radiotherapy equipment Radeq AB

15:45 Planmeca Oy

16:00 Oy Scanex Medical Systems Ab

**16:15 Results of the poster competition, award ceremony & closing of the day**

**18:00 Evening gathering, Food & Co restaurant Snellmania & lobby, Snellmania building**



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Day 2: Friday 23.2.2024, Medistudia, MS302

**08:00 Coffee & PhD poster setup**

**08:25 Opening by Local Organizers & Best LFT Best Paper 2023 Award Introduction**

**08:30 LFT Best Paper 2023 Award Presentation** (chair: Simo Särkkä)

TBA

**08:45 Presentation session 1** (chair: Rami Korhonen)

08:45 Anahita Gheisari, *Viscoelastic Properties of Collateral Ligaments in A Rabbit Model Eight Weeks After Anterior Cruciate Ligament Transection*

08:57 Ellen Hellman, *Acute Effects of Soleus EMG Biofeedback on Knee Adduction Moments in Young Adults*

09:09 Harini Wickramaarachchige, *Adaptation of Near Infrared (NIR) Spectroscopy for In Situ Monitoring of Cartilage Tissue Engineering*

09:21 Rasmus Hiltunen, *In Situ Indentation Testing Device Enables Analysis of Altered Cell Microenvironment on Cell Deformation*

**09:33 Break (~60 min) & PhD poster viewing Medistudia lobby**

**10:30 Presentation session 2** (chair: Timo Leppänen)

10:30 Henna Pitkänen, *Towards Automatic Sleep Analysis Evaluating Human Agreement in Arousal Scoring*

10:42 Heta Orava, *Hydrogels with Reinforcing Fiber Mesh Experience Similar Load-induced Pressurization to Native Cartilage*

10:54 Joonas Kosonen, *Acute N-acetylcysteine Treatment Simulated by An In Silico Model With Overloading Induced Cell Damage and Recovery Mechanisms*

11:06 Henri PP Leskinen, *Orientation-independent Quantitative MRI Parameters in Healthy and Degenerated Human Articular Cartilage*

**11:18 Closing of LFT Days**

**11:20 Lunch (at own cost, Food & Co restaurant Canthia, Canthia building)**

**12:15 – 13:30 Lab tours**

- Humea & BBC labs: Human motion lab, biomechanics lab (Snellmania building)
- STAR: SmartSleepLab (Canthia building)
- AIVI: preclinical MRI facilities (A.I. Virtanen Institute, Bioteknia building)
- SIB Labs: Microscopy, Spectroscopy &  $\mu$ CT facilities (Snellmania building)

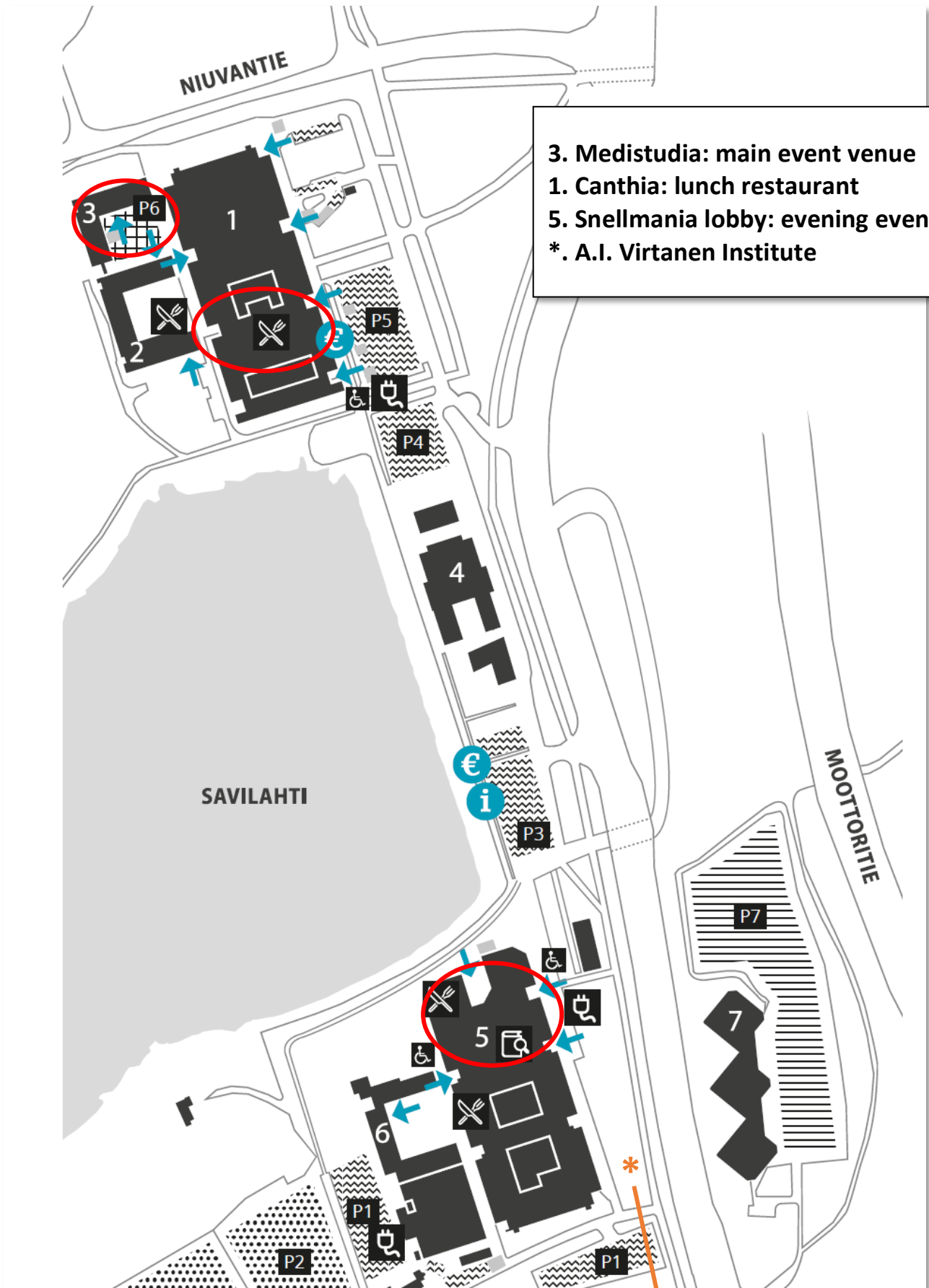
14:20 Turku, Tampere, Helsinki trains departure; 15:39 Oulu train departure





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**3. Medistudia: main event venue**  
**1. Canthia: lunch restaurant**  
**5. Snellmania lobby: evening event**  
**\*. A.I. Virtanen Institute**