LBMC UMR_T 9406 (Univ Eiffel – UCBL)
Université Gustave Eiffel, Campus de Lyon
25, avenue François Mitterrand
F-69675 Bron Cedex

https://lbmc.univ-gustave-eiffel.fr/

## Scientific Seminar

# Kinematic analysis: for better TKA patient engagement, outcomes and satisfaction

**Professeure Nicola Hagemeister**
***École de technologie supérieure,***
***Montréal, Québec, Canada***

### Information

Date: Thursday, 25 june 2026
**13:00 - 14:00** , room Jules Verne
Université Gustave Eiffel, Campus de Lyon
25 av. F. Mitterrand, Bron

Presentation in **English**

### Abstract

Total knee arthroplasty (TKA) is an effective way to treat severe knee osteoarthritis. However, up to now, still 20% of patients are unsatisfied, complaining of residual pain or discomfort. The present talk will expose how the use of a innovative tool, the knee kinesiography exam, can help identifying the factors that lead to dissatisfaction. The knee kinesiography exam is based on the KneeKG technology that was co-invented by the presenter. It allows precise, repeatable and fast three-dimensional analysis of knee kinematics in a clinical setting. 20 years of research with multiple cohorts have lead to the identification of biomechanical markers that provide better understanding of residual dysfunctions and help in post-op management to improve patient reported outcomes.

### Short biography

Prof. Nicola Hagemeister graduated her PhD in biomedical engineering at École Polytechnique de Montréal in 2001. She is full professor at École de technologie supérieure since 2003 and part of the Laboratoire d'Innovation Ouverte (LIO - Centre de recherche du CHUM) as well as of the international laboratory LIA-EVASYM. Her research interests are about functional analysis of joints (knee and shoulder).