November 13<sup>th</sup>, 2017 KAP 414 2:00 P.M. – 3:00 P.M.

## **Professor Igor Cialenco**

(Illinois Institute of Technology)

"Time Consistency of Risk and Performance Measures"

**Abstract:** We propose a new flexible unified framework for studying the time consistency property suited for a large class of maps defined on the set of all cash flows and that are postulated to satisfy only two properties -- monotonicity and locality. This framework integrates the existing forms of time consistency for dynamic risk measures and dynamic performance measures (also known as acceptability indices). The time consistency is defined in terms of an update rule, a novel notion that would be discussed into details and illustrated through various examples. Finally, we will present some connections between existing popular forms of time consistency.

This is a joint work with Tomasz R. Bielecki and Marcin Pitera.