**SIKS course “Data Science Kaleidoscope”, June 6-7, Vught.**

**Wednesday June 6**

09.45 - 10.00 Opening by Prof.dr. Uzay Kaymak (TUE) & Dr. Hans Weigand (TiU)

10.00 - 10.40 Dr. Hans Weigand (TiU) *Data Science & Smart Auditing*

10.40 - 10.50 Break

10.50 - 12.10 Dr. Derek T. Anderson (University of Missouri-Columbia, USA) *What is the fuzzy integral and why should you care?*

12.10 -13.00 Lunch

13.00 - 14.15 Dr. Davide Ceolin (CWI) *Linked Open Data and Data Quality*

14.15 - 14.30 Break

14.30 - 15.45 Dr. Christoph Lofi (TUD) *Personalized Queries*

15.45 -16.00 Break

16.00 - 17.00 Dr. Emiel Caron (TiU) *Data cleaning*

**Thursday June 7**

9.00-10.30 Prof.dr. Eric Postma (TiU) *Deep learning*

10.30 – 11.00 Break

11.00-12.00 Prof.dr. Milan Petkovic (Philips) *Data Science; an industry perspective*

12.00 – 13.00 Lunch

13.00-13.45 Poster session & discussion

13.45 - 14.45 Prof. dr. Arno Siebes (UU) *Data Science as a language*

14.45 - 15.00 Break

15.00-16.15 Dr. Anna Wilbik (TUE*) Linguistic summarization of event data*

16.15-16.45 Prof.dr. Uzay Kaymak (TUE) *Reflection on Data Science*

**Short Abstract lecture Derek Anderson**

Data is ubiquitous in our current technological era. This is both a blessing and a curse. For example, in engineering we are swimming in sensors but drowning in data. In addition, data/information from a combination of sources (sensors, algorithms, and humans) is often plagued by uncertainty (e.g., fuzzy, probabilistic, etc.). One way to combat challenges like these in the pursuit of data-to-decisions is fusion. In this talk, I will introduce the fuzzy integral, a parametric nonlinear aggregation function. This journey will take us through (i) what is an aggregation function, (ii) why should we use (or not use) the fuzzy integral, (iii) how does the fuzzy integral work (different representations), and (iv) how can we obtain, understand, and/or explain the fuzzy integral (indices). Applications in machine learning and human decision making will be discussed.