

SIBYLLE HESS

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ACADEMIC JOURNEY

ASSISTANT PROFESSOR **SINCE 2021**
Data Mining Group of Mykola Pechenizkiy, TU Eindhoven

POST DOC **2019-21**
Data Mining Group of Mykola Pechenizkiy, TU Eindhoven

PHD CANDIDATE **2015 - 19**
Collaborative Research Center SFB 876, TU Dortmund
Dissertation: A Mathematical Theory of Making Hard Decisions: Model Selection and Robustness of Matrix Factorization with Binary Constraints (summa cum laude), under the supervision of Katharina Morik

SELECTED ARTICLES

S. Hess, G. Pio, M. Hochstenbach and M. Ceci
BROCCOLI - Overlapping and Outlier-robust Biclustering through Proximal Stochastic Gradient Descent, *Data Mining and Knowledge Discovery* 35.6 (2021): 2542-2576.
IMPACT FACTOR: 3.67

S. Hess, W. Duivesteijn
k is the Magic Number — Inferring the Number of Clusters Through Nonparametric Concentration Inequalities, *ECML PKDD 2019* **ACCEPTANCE RATE: 18%. CORE RANK A**

S. Hess, W. Duivesteijn, P. Honysz and K. Morik
The SpectACl of Nonconvex Clustering: A Spectral Approach to Density-Based Clustering, *AAAI 2019*, selected for oral presentation **ACCEPTANCE RATE: 16%. CORE RANK A***

S. Hess, N. Piatkowski, K. Morik
The Trustworthy Pal: Controlling the False Discovery Rate in Boolean Matrix Factorization, *SDM 2018*: 405-413
ACCEPTANCE RATE: 23%. CORE RANK A

S. Hess, K. Morik
C-SALT: Mining Class-Specific ALTerations in Boolean Matrix Factorization, *ECML PKDD (1) 2017*: 547-563
ACCEPTANCE RATE: 27%. CORE RANK A

S. Hess, K. Morik, N. Piatkowski
The PRIMING routine - Tiling through proximal alternating linearized minimization, *Data Mining and Knowledge Discovery* 31(4): 1090-1131 (2017)
IMPACT FACTOR: 2.48

KNOWLEDGE DISTRIBUTION

DATA SKEPTIC PODCAST **2021**
Episode about the connections of k -means and deep learning

INVITED TALK **2021**
University of Edinburgh

TUTORIAL ABOUT MATRIX FACTORIZATIONS
held at DSAA Pattern 2021, SIAM SDM 22

INVITED LECTURES
for SIKS PhD students in Utrecht **2021**
at the SFB876 summer school in Dortmund **2022**

DATA MINING & MACHINE LEARNING **SINCE 2019**
Bachelor *Computer Science and Engineering* course at TU Eindhoven (≈ 300 students), awarded with a *PLUIM* in 2020

DATA MINING **SINCE 2020**
Bachelor *Data Science* course at TU Eindhoven with University of Tilburg (≈ 200 students)

SERVICE

CHAIRING
ECML PKDD Proceedings Chair **2019/22**
IEEE ICDM PhD Forum Chair **2021**
UAI Local Chair **2022**
IDA Program Chair **2023**

UAI DISCUSSANT **2021/22**

TOP-REVIEWER AWARDS
ICML 2020, ICLR 2022, UAI 2022

PC MEMBER
NeuRIPS, AISTATS, ACM SIGKDD, ICML, UAI, IJCAI, IJCAI Survey Track, SDM, ICLR, IEEE ICDM, ECML PKDD, LWDA

JOURNAL REVIEWER
IEEE Transactions on Knowledge and Data Engineering, Information Systems, Knowledge and Information Systems (KAIS), Entropy