**Scientific Publications (partial excerpt)**

**A Generalization of the Pearson Correlation to Riemannian Manifolds**

Role: Main author, Affiliation: Universität Heidelberg (Mathematisches Institut)

Subjects: Statistics Theory (math.ST); Differential Geometry (math.DG), MSC classes: 62H20

Publication date of current revision (Rev. 3): 7. Mai 2020

URI: <https://arxiv.org/abs/2006.04215>

**Applications of Structural Statistics: Geometrical Inference in Exponential Families**

Role: Main author, Affiliation: Universität Heidelberg (Mathematisches Institut)

Subjects: Statistics Theory (math.ST), MSC classes: 62G07

Publication date of current revision (Rev. 2): 19. Apr. 2020

URI: <https://arxiv.org/abs/2004.08909>

**Foundations of Structural Statistics: Statistical Manifolds**

Role: Main author, Affiliation: Universität Heidelberg (Mathematisches Institut)

Subjects: Statistics Theory (math.ST); Information Theory (cs.IT), MSC classes: 62A01

Publication date of current revision (Rev. 2): 18. Feb. 2020

URI: <https://arxiv.org/abs/2002.07424>

**Foundations of Structural Statistics: Topological Statistical Theory**

Role: Main author, Affiliation: Universität Heidelberg (Mathematisches Institut)

Subjects: Statistics Theory (math.ST); Machine Learning (cs.LG), MSC classes: 62A01

Publication date of current revision (Rev. 3): 21. Dez. 2019

URI: <https://arxiv.org/abs/2002.07424>

**Principal Manifold Based Correlation Analysis applied to Gene Regulation Analysis of Glioblastoma Multiforme**

Role: Main author, Affiliation: Universität Heidelberg, Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

Publication date of current revision (Rev. 1): 1. Sept. 2017

**Talks at scientific conferences (partial excerpt)**

**Structure Learning with deep neural networks (rev)**

Event: 7th Network Modeling Workshop 2014, Heidelberg, Germany

Affiliation: Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

<https://www.slideshare.net/PatrickMichl1/structure-learning-with-deep-neuronal-networks-218824948>

**Structure Learning with deep neural networks**

Event: 6th Network Modeling Workshop 2013, Jena, Germany

Affiliation: Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 6. Juni 2013

<https://www.slideshare.net/PatrickMichl1/structure-learning-with-deep-neuronal-networks-2013-218824204>

**Structure learning with Deep Autoencoders**

Event: Network Modeling in Systems Biology 2013, Heidelberg, Germany

Role: Speaker, Affiliation: Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 30. April 2013

<https://www.slideshare.net/PatrickMichl1/structure-learning-with-deep-autoencoders>

**Regulation Analysis using Restricted Boltzmann Machines**

Event: 5th Network Modeling Workshop 2013, Heidelberg, Germany

Role: Speaker, Affiliation: Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 10. Jan. 2013

<https://www.slideshare.net/PatrickMichl1/regulation-analysis-using-restricted-boltzmann-machines-218822661>

**Concept of Regulation Analysis using restricted Boltzmann Machines**

Event: iBIOS 2012, Kleinwalsertal, Austria

Role: Speaker, Affiliation: Deutsches Krebsforschungszentrum (DKFZ)

Subjects: Gene Regulation (q-bio.MN); Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 2. Feb 2012

<https://www.slideshare.net/PatrickMichl1/concept-of-regulation-analysis-using-restricted-boltzmann-machines-218821777>

**Talks at expert conferences (partial excerpt)**

**Attention please! Attention Mechanism in Neural Networks**

Event: 4th PyData Conference 2019, Heidelberg, Germany

Role: Speaker, Affiliation: frootlab.org

Subjects: Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 21. Nov. 2019

<https://www.slideshare.net/PatrickMichl1/attention-please-attention-mechanism-in-neural-networks-218825708>

**Anwendungen nichtlinearer Korrelationsanalyse in der Open Source Analyse (OSINT)**

Event: Corporate Workshop, Pullach im Isartal, Germany

Role: Speaker, Affiliation: Freelance Data Scientist

Subjects: Machine Learning (cs.LG), MSC classes: 62A01

Date of the talk: 8. Juni 2019

**Books**

**Netzwerktechnik**

Description: Textbook for the vocational education of “Techniker, Fachrichtung Elektrotechnik”

Role: Main author, Affiliation: Bayerische Industrie- und Handelskammer

Publication date (Rev. 1): 1. Aug. 2011

Publisher: Fernlehrinstitut Dr. Robert Eckert GmbH

Publication code: NET(TE)1 2011