

Bern Data Science Day 2021 - April 23 - Programme

Welcome to the Bern Data Science Day 2021. The event happens online only and all registered participants will receive a Zoom link per email.

For proper participation in poster sessions, a Zoom client (desktop or mobile) is required. Please make sure in advance that it's installed and up to date. There will be an award vote after the poster sessions, with up to 5 votes per person. Please note the poster IDs which you would like to vote for. A Google account is required to ensure fair voting.

During the poster sessions you can visit the breakout rooms you like and ask the presenters to show and explain their posters. There are two to three posters in each room. To preorient yourself, you may look at the folder of abstracts linked to the webpage.

Wepage: <https://www.dsl.unibe.ch/events/bdsd2021>

08:45 - 09:00 Opening and Welcome (R. Sznitman, C. Tretter)

09:00 - 10:00 Plenary Presentations (chairs C. Beisbart, A. Tzovara)

		Presenter
9:00	An Instrumented Apartment to Monitor Human Behaviour During Day and Night: The NeuroTec Loft	Stephan M Gerber
9:15	Weakly Supervised Tissue Segmentation in Colorectal Histopathology Images	Huu-Giao Nguyen
9:30	Reduction of survey sites in dialectology: a new methodology based on clustering	Péter Jeszenszky
9:45	Addressing bias in big data and AI for healthcare: a call for open science	Natalia Norori

10:15 - 12:00 Poster Session 1 in 11 breakout rooms (chairs S. Haug, A. Kashev)

Poster ID	Room	Poster Title	Cor. Author
2	1	ESRA: An end-to-end system for re-identification and anonymization of Swiss court decisions	Joel Niklaus
4	1	(plenary presentation)	Stephan M Gerber
5	1	Automatic input variable selection with genetic algorithms for statistical precipitation prediction	Pascal Horton
6	2	SCRC: Swiss Court Rulings Corpus	Joel Niklaus
7	2	Predicting machine uncertainties from logfile data of a radiotherapy system using machine learning	Hannes A Loebner

8	2	Digital Multilocality – A novel and experimental digital mixed methods approach to research multilocal work between cities and mountain regions	Reto Bürgin
9	3	Training Applied Data Science	Kinga Sipos
10	3	Are you a Zombie? A Supervised Learning Method to Classify Unviable Firms and Identify the Determinants	Angela De Martiis
11	3	UniBE HPC – UBELIX - Resources for (Data) Scientists	Mandes Schönherr
12	4	Unobtrusive Sensor system to measure behavioural and physiological parameters during the night	Samuel EJ Knobel
13	4	Cognitive State Monitoring through the usage of ambient sensor technology	Angela Botros
14	4	Modulating Robotic Assistance with Machine Learning to Enhance Motor Skill Training	Özhan Özen
15	5	Using clusters in the atmosphere's circulation to improve predictions of European wind speeds	Sam Allen
16	5	Automatic Temporal Alignment for Sensor Signals	Narayan Schuetz
17	5	Distributed and Federated Learning Optimization with Federated Clustering of IID-users	Lucas Pacheco
18	6	MRI images classification and a DCGAN neural network model as ultimate approach to an imbalanced dataset	Gianluca Camparini
19	6	Reinforcement-supported Artificial Neural Network-based Trajectory Prediction	Negar Emami
20	6	(plenary presentation)	Natalia Norori
21	7	Detecting climate drivers of extreme impacts with machine learning	Aris Marcolongo
22	7	Aiming for more objectivity in creativity assessment – Applying word vectors on creativity data	Magdalena Camenzind
23	7	Trade-offs between classification performance and interpretability in deep learning for EEG signals	Florence M Aellen
24	8	Science with GNSS: a multi-disciplinary challenge	Daniel Arnold
25	8	Satellite orbit and gravity field determination at AIUB	Daniel Arnold
26	8	Implicit Update for Large-Scale Inversion under GP Prior	Cédric Travelletti
27	9	What are the key issues to consider when publishing research data openly?	Olga V Churakova
28	9	Open access resources for classifying neuroscience data	Pinar Göktepe
29	9	Sample-based estimation of probability density fields: a spatial extension of the logistic Gaussian process	Athénaïs Gautier
30	10	Visualizing Language Models	Christa Schneider
31	10	Predicting proximity to death: How accurate can we get?	Kosta Shatrov
32	10	(plenary presentation)	Péter Jeszenszky
33	11	Study planets, exoplanets and small body dynamics in the Solar System with the GPU N-body code GENGA	Simon L Grimm
34	11	Analysis of immune cell interaction with Blood-Brain Barrier model under physiological flow	Mykhailo Vladymyrov
35	11	Sequential neutral-zone classification for diagnosis of dementia from longitudinal measures with mixed-effects models	Patric Wyss

13:00 - 14:00 Keynote T. Broderick, MIT (session chair D. Ginsbourger)

An Automatic Finite-Sample Robustness Metric: Can Dropping a Little Data Change Conclusions?

14:15 - 16:00 Poster Session 2 in 11 breakout rooms (chairs S. Haug, A. Kashev)

Poster ID	Room	Poster Title	Cor. Author
36	1	Speech Signal Enhancement in Cocktail Party Scenarios by Deep Learning based Virtual Sensing of Head-Mounted Microphones	Tim Fischer
38	1	Predicting OCT biological marker localization from weak annotations	Javier Gamazo Tejero
39	1	A deep-learning based cataract workflow analysis	Michel Hayoz
40	2	Estimating microvascular leakage in multiple sclerosis lesions from perfusion MRI data	Dominik Obrist
41	2	Deep learning for automatic quantification of AVN of the femoral head on 3D MRI in patients eligible for joint preserving surgery: A pilot study	Adrian Ruckli
42	2	Active Learning for Multilabel Classification of Medical Images	Vasily Tolkachev
43	3	Region-based VQA in the medical domain	Sergio Tascon Morales
44	3	Predicting remaining duration of cataract surgeries	Andrés Marafioti
45	3	The predictive value of segmentation metrics on dosimetry in organs at risk of the brain.	Robert Poel
46	4	Machine Learning-Based Prediction of Long-Term Treatment Demand for Patients with Chronic Retinal Diseases	Mathias Gallardo
47	4	Pretrained Features are Effective for Unsupervised Out-of-Distribution Detection in Medical Images	Lars Doorenbos
48	4	Biomechanical simulation platform for patient-specific refractive interventions	Malavika H Nambiar
49	5	Automatic detection, characterization, and classification of local Ca ²⁺ release events in cardiomyocytes	Prisca Dotti
50	5	Effects of Scanner Variability on Deep Learning based Lymph Node Segmentation	Amjad Khan
51	5	(plenary presentation)	Huu-Giao Nguyen
52	6	Active Learning for Medical Images	Fei WU
53	6	A Finite Element Study on the Biomechanics of Intracorneal Implants in Keratoconus Corneal Models	Hamid Reza Katoozian
54	6	Retinal Layer Distance Estimation from Instrument-integrated OCT	Alain Jungo
55	7	Segmenting encrustations from clinically retrieved Double-J ureteral stents	Shaokai Zheng
56	7	Design Optimization of a Robotic Device for Sensorimotor Hand Training based on Anthropometric Data	Raphael Rätz
57	7	Machine learning and patient-specific biomechanical methods for assessing outcome in total shoulder arthroplasty	Osman Berk Satir

58	8	Quality assessment: An exploratory study of MRI Vendor effects on Medical Image Segmentation	Suhang You
59	8	HPC-PREDICT – workflow for computer-augmented 4D-Flow-MRI of the ascending aorta	Dominik Obrist
60	8	Interpretability-Driven Sample Selection Using Self Supervised Learning For Disease Classification And Segmentation	Mauricio Reyes
61	9	AI-multi-omics-based Prognostic Stratification of COVID-19 Patients in Acute and Chronic State	John Garcia
62	9	Food recognition in assessing the mediterranean diet: A hierarchical approach	Ioannis Papathanail
63	9	Deep Learning for Predicting Gamma-Ray Interaction Positions in LYSO Detector	Christoph Clement
64	10	Entropy Guided Unsupervised Domain Adaptation for Cross-Center Hip Cartilage Segmentation from MRI	Guodong Zeng
65	10	Comparison of different methods for Ki-67 quantification in breast cancer biopsies	Inti Zlobec
66	10	Unsupervised Domain Adaptation for Colorectal Cancer Tissue Classification Using Self-supervised Deep Learning Methods and Sparsely-labeled Data	Linda Studer
67	11	PBPK-based in silico tumor microenvironment model for PSMA-directed radioligand therapy	Gabriele Birindelli
68	11	A Deep-Learning Diagnostic Support System for the Detection of COVID-19 Using Chest Radiographs: A Multireader Validation Study	Matthias Fontanellaz
69	11	Gradual Fine-Tuning for accurate Blood Glucose Level Prediction	Matthias Fontanellaz

16:00 - 17:00 Award and Closing (P. Favaro, M. Reyes, J. Ziegel)

16:00	Audience awards - online voting (google account required, votes before 16:10 are not valid) - 300 CHF and 200 CHF : https://forms.gle/i2A613vaxjohigot9
16:20	Scientific committee award - 500 CHF
16:25	Chat with winners
16:45	Feedback from everybody - please fill this form: https://forms.gle/u6JDLpuCd9H489i28

17:00 - 19:00 Apero (individual due to pandemic)