MB2024
Program Schedule

All times are local, BST

Wednesday 15th May

Time	Conference Suite 2A	Meeting Room 4	Meeting Room 7	Meeting Room 5
09:00 - 10:00	**Keynote: Anne-Marie Brouwer**			
	Measuring Mental States			
10:00 - 10:40	**Measuring behavior and physiology in and around the cockpit**	**Advances in using AI to assess animal behaviour and welfare**	**Behavioral tests (A)**	**Workshop: Certifying Digital Monitoring Technologies**
10:00 - 10:20	Ivo Stuldreher - Assessing progress in flight performance in a virtual reality simulator	Mona Giersberg - Transdisciplinary Initiatives to Collaborate on the Responsible Use of AI for Animal Welfare	Mahesh Karnani - Measuring motivational switching in mice using open-design: the Switchmaze	
10:20 - 10:40	Bertille Somon - EEG characterization of dynamic complex processes and rare events to understand operator's activity in aeronautical context.	Marlou van der Sluis - Using Multi-Directional Computer Vision for Automated Leg Health Scoring in Broilers	Eline Eberhardt - Interobserver Reliability and Validity for Video-based Clinical Behavior of Canines in Preclinical Safety Studies	
10:40- 11:10	Break			
11:10 - 12:30	**Measuring behavior and physiology in and around the cockpit**	**Advances in using AI to assess animal behaviour and welfare**	**Methods for the Study of Olfactory learning and Memory**	**Technology for measuring behavior (A)**
11:10 - 11:30	Anneka Hamann - A Window into the Mind? On Usefulness and Challenges of Neurophysiological Measurements in the Cockpit	Arjan van Putten - Identifying and tracking group housed hens using ArUco marker backpacks	Kyle Roddick - An Overview of Methods for Measuring Olfaction in Rodents	Poja Shams - Monitoring Work Stress: The Role of Physiological Measures in Enhancing Workplace Well-being
11:30 - 11:50	Maykel van Miltenburg - Unlocking Cost-Effective Insights: Leveraging Webcam Metrics for Cognitive Workload Assessments	Oleksiy Guzhva - AI in rose-coloured glasses: how close to an individual animal can (should) we come?	Richard Brown - Pavlovian Conditioned Odour Preferences in Mice	Jennifer Lumetzberger - From Bees to Prisons in Computer Vision: Lessons for Recording Behavior in the Real World
11:50 - 12:10		Saif Agha - AI-PigNet: Insights into the social interaction of pigs through automated data and social network analysis	Wyatt Ortibus - Olfactometer Methodologies in Rodent Olfaction Research: "What can we test about learning and memory?"	Jeanette Hadaschik - Implementing Behavioural Decision-Making Tasks into Virtual Reality environments
12:10 - 12:30		Emma Baxter - Challenges and opportunities of working with PLF technology and AI researchers: the applied ethologist's experience	Robert Gerlai - Olfactory Cues in Zebrafish Behavioural Studies: From Anxiety to Learning	Bénédicte Batrancourt - Rest activity pattern as behavioral marker of apathy in patients at home using sensors.
12:30 - 14:00	Lunch			
14:00 - 15:00	**Human factors**	**Advances in using AI to assess animal behaviour and welfare**	**Behavioral tests (B)**	**Tutorial: Beats Science Coding – Web-based video analysis for behavioural sciences**

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14:00 - 14:20	Esther Bosch - Beyond Snapshots: Validation of a Continuous Frustration Assessment in a Simulator and Real-World Setting	Marwa Mahmoud - Towards early prediction of disease in farm animals: Vision-AI for automatic analysis of face, gait and motion for sheep behavior understanding	Thilo Womelsdorf - Translational Validity of Assessing Cognitive Control and Memory Functions in Nonhuman Primates Using Gamified Tasks	
14:20 - 14:40	Stephen Provost - Identifying Team Process Behaviours of Clinical Nursing Teams Working on Lower-acuity Hospital Units	Lucy Asher - Can Artificial Intelligence Contribute to our Conceptual Understanding of Animal Welfare?	Rebecca Grut -- Sniffing Out Pigs Immediate Perception of Novel Odours (Pig Odour Hedonics)	
14:40 - 15:00		Albert Ali Salah - Automatic pain estimation in equines and canines	Tereza Nekovářová - Measuring Episodic Memory in Preschool Children	**Demonstration**: A New Approach to Setting Up Operant Conditioning Experiments
15:00 - 15:30	**Break**			
15:30 - 17:10	**Using behavioural approaches to measure apathy-like behaviour in rodents**	**Animal welfare**	**Bioacoustics**	**Tutorial: DISK — a Deep Learning method for missing skeleton data imputation in 2D and 3D**
15:30 - 15:50	Lianne Robinson - Development of a Behavioural Test Battery to assess Apathy-like Behaviours in Mouse Models of Neurodegeneration	Claire Witham - Home cage monitoring of group-housed animals in highly enriched enclosures	Buddhamas Pralle Kriengwatana - Acoustic features of vocalisations of laying hens in positive and negative emotional states	
15:50 - 16:10	Nicole Edwards - The splash test as a model of rodent apathy	Ineke Smit - Quantifying equine facial expressions with optical motion capture and surface electromyography; a proof of concept	Bruna Bezerra - Primate Detection Through Passive Acoustic Monitoring Varies According to Species and the Biome	
16:10 - 16:30	Richard Brown - Measuring "apathy" in mouse models of AD	Monica Battini - Setting up an observation strategy to record feeding synchronization in dairy cows	Mathilde Coutant - Bioacoustic sensors to monitor farm animal welfare: why the ethology matters	
16:30 - 16:50	John Salamone - Modeling Aspects of Apathy in Rodents using Effort-based Choice Procedures.	Sonia Rey - Rhythmicity as a welfare indicator – effect of extrinsic and intrinsic motivation in equines		
16:50 - 17:10	Mercè Correa - The 3 choice-T-maze task with running wheel: a mice paradigm to evaluate preference for reinforcers that require vigor and the role of dopamine in anergia	Janire Castellano Bueno - Bridging the Gap - Integrating Wild Animal Welfare into Behaviour Studies		
Evening	**Reception**			

Thursday 16th May

Time	Conference Suite 2A	Meeting Room 4	Meeting Room 7	Meeting Room 5
09:00 - 10:00	**Keynote: Robert Gerlai**			
	What motivates zebrafish? Searching for effective unconditioned stimuli for appetitive associative			
10:00 - 11:00	**AI and machine learning**	**Novel Methods in Measuring Animal Affective States**	**Behavioral tests (C)**	**Workshop: Exploring Novel Change Point Analysis in Sports to Other Domains**

Time	Column 1	Column 2	Column 3	Column 4
10:00 - 10:20	Eline Eberhardt - Video-Tracking Locomotor Activity of Canines in Preclinical Safety Studies	Lauren Finka - Using Facial Action Unit and Geometric Morphometric approaches to quantify animal facial movements and their interpretability in the context of affective states	Robyn Grant - From labs to zoos to the field: mammalian whister and avian rictal bristle behaviour	
10:20 - 10:40	Tenzing Dolmans - Real-Time Adaptive Machine Learning Systems for Personalised Bruxism Management	Bridget Waller - Can Facial Action Coding Systems (FACS) be used to Quantify Emotion in Animals?	Ugne Simanaviciute - Developing novel whisker movement tests to examine object-related exploration and habituation in Reeler mice	
10:40 - 11:00	Jeanne I.M. Parmentier - Measuring equine respiration in the field: an exploration of microphone data and deep learning detectors	Claire Ricci-Bonot - Automated recognition of facial expression of frustration and disappointment in horses during feeding period	Veronika Borbélyová - Age- and Sex-Related Behavioral Changes During the Lifespan of Wistar Rats	
11:00- 11:20		Catia Correia-Caeiro - A new observational tool for measuring facial movement in gorillas (*Gorilla* spp.): GorillaFACS - The Gorilla Facial Action Coding System	Ashwin Miriyala - Neural Control of Odour Seeking Behaviour In the Fruit Fly	
11:00 - 11:30	**Break**			
11:30 - 12:30	**AI and machine learning**	**Novel Methods in Measuring Animal Affective States**	**Digital Innovations in Home Cage Monitoring**	
11:30 - 11:50	Alyx Elder - Challenging Machine-Learning with Underwater Whisker Tracking in South African Fur Seals (*Arctocephalus pusillus*)	Tiago Monteiro - Dogs' tail as a metronome of their emotional states and its use as a communicative tool: effects of intra and interspecific audiences during a frustration condition	Stefano Gaburro - Home cage rack-based technology: welfare and scientific applications	
11:50 - 12:10	Harry Gill - Validation Of An AI-based Markerless Tracking Approach For Gait Analysis In Domestic Dogs	George Martvel - CatELD: an Automated Landmark Detector for Cat Facial Analysis	Michael Tsoory - Detecting Sciatic nerve injury (SNI) induced motor impairments and recovery using the DVC system; a core facility unit user's perspective	**The future of the Measuring Behavior conferences series**
12:10 - 12:30		Anna Zamansky - The Development of a Facial Landmark Scheme for Dogs	Fabrizio Scorrano - Use of rack base technologies in Pharmaceutical Settings	
12:30 - 14:00	**Lunch**		12:30 - 12:50 Thomas Svava Nielsen - Urination in the Home Cage: Development of a Digital Biomarker for Sample-Free Diagnosis of Diabetes in Mice	
13:30 - 14:00	**Poster pitches**			
14:00 - 15:00			**Tutorial: DIY home-cage monitoring**	**Demonstrations**
14:00 - 14:20	Posters (in exhibtion area)			Climbing test for automated measurement of vertical activity in mice – Frederico Montechiaro (Ugo Basile)
14:20 - 14:40				The Ethometer – Willem Dekkers (Royal GD)
14:40 - 15:00			**Demonstration: Beats - Alan Weisscher (Eumedia)**	Advanced in-depth phenotyping smart cage – Michael Florea (Olden Labs)

15:00 - 15:30	Break			
15:30 - 16:50	**Considerations in behavioural phenotyping of genetic mouse models of Alzheimer's disease and frontotemporal dementia**	**Multi-modal measurements**	**Tutorial: Computer Vision Tools for Measuring Behavior**	**Workshop: Measuring the welfare of wild animals**
15:30 - 15:50	Sevda Boyanova - Behavioural, cognitive and sensory phenotyping of knock-in mouse models of Alzheimer's disease and frontotemporal dementia	Fan Xu - The constructive effect of positive encouragement on preschool children		
15:50 - 16:10	Szu-han Wang - A simple task reveals mixed findings: factors to consider in preclinical behavioural research	Ivo Stuldreher - Classifying arousal and valence from facial expressions and physiological responses evoked by multiple stressors		
16:10 - 16:30	Loukia Katsouri - Behavioural characterisation of humanised APP knock-in mice	Anna Kis - Non-invasive ways to measure sleep behaviour in family dogs		
16:30 - 16:50	Julija Krupic - Cognitive and Behavioural Phenotyping of APP-KI mice in the home cage enclosures	Nattapong Thammasan - Towards a Multi-Modal Human Digital Twin for Nutrition and Wellbeing		
Evening	**Conference dinner**			

Friday 17th May

Time	Conference Suite 2A	Meeting Room 4	Meeting Room 7	Meeting Room 5
09:00 - 10:00	**Keynote: Albert Ali Salah**			
	Designing Computational Tools for Behavioral and Clinical Science			
10:00 - 11:00	**TEATIME presents: Enhancing Reproducibility and Animal Welfare through Home Cage Systems**	**AI advances in pose estimation and behavior recognition in laboratory animals**	**Measuring farm animal behavior**	**Optimizing analysis of longitudinal, high resolution behavioural data**
10:00 - 10:20	Rasneer Sonia Bains - Listening Carefully, the Challenges of Recording Home Cage Ultrasonic Vocalizations	Thomas Wollmann - DeepRod: A human-in-the-loop system for automatic rodent behavior analysis	Marie Schneider - Method comparison to analyse the activity rhythm of dairy cows during early lactation	Mike Toscano - Methods to assess variation of movement within and across laying hens within a commercial system over extended periods of time
10:20 - 10:40	Irmgard Amrein - Clever testing of smart mice with IntelliCage protocols avoiding water restrictions	Caleb Weinreb - Parsing the sub-second structure of animal behavior with Keypoint-MoSeq	Laura Torres Borda - Equine social proximity according to space availability using ultra-wideband technology	Juan Steibel - Dyadic linear models for genetic analysis of behavioral interactions
10:40 - 11:00	Lars Lewejohann - Home-cage based testing: How to bring the test to the animal and not the animal to the experiment	Liezl Maree - Multi-view triangulation-enabled annotation for multi-animal 3D pose in SLEAP	Johanna Stenfelt - Olfactory Conditioning in Farm Animals - A Discussion of Methods	Lucas Fontanesi - European Network on Livestock Phenomics (EU-LI-PHE): Mission on Big Data Focused on All Types of Animal-Related Phenotypes, Including Behavior
11:00 - 11:30	Break			
11:30 - 12:10	**TEATIME presents: Enhancing Reproducibility and Animal Welfare through Home Cage Systems**	**AI advances in pose estimation and behavior recognition in laboratory animals**	**Measuring farm animal behavior**	**Technology for measuring behavior (B)**
11:30 - 11:50	Lior Bikovski - Home cage: a uniquely sensitive tool for detecting hidden phenotypes	Vivek Kumar - End-to-end behavior annotation pipeline for mouse behavior annotation.	Wijbrand Ouweltjes - An investigation of several methods to monitor behaviour of housed dairy cows	John Church - Effectiveness of zoom equipped drones for use in reading livestock ear tags for animal identification.

11:50 - 12:10	Stefano Gaburro - Using Digital Biomarkers to Measure Animal Behavior for Translational Research: The 3Rs Collaborative Initiative	Elsbeth van Dam - Fast annotation of Rodent Behaviors with AI Assistance: Human Observer and Smart Annotator collaborate through Active Learning	Christiane Engels - Measuring Dairy Cow Behavior Using a Barometric Sensor	Michael Florea - Towards deep physiology in home cage: AI and sensor cages for multi-animal whole-body health testing
12:10 - 12:45	Closing session			
12:45 - 13:30	Lunch			