

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

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)	

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 whisker and avian rectal 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 (<i>Gorilla</i> 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 (<i>Arctocephalus pusillus</i>)	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				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				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	Liezl Maree - Multi-view triangulation-enabled annotation for multi-animal 3D pose in SLEAP	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	Timon Daniels - Fast annotation of Rodent Behaviors with AI Assistance: Human Observer and Smart Annotator collaborate through Active Learning	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	Adrian Loy - DeepRod: A human-in-the-loop system for automatic rodent behavior analysis	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	Vivek Kumar - End-to-end behavior annotation pipeline for mouse behavior annotation.	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			