Tuesday June 4

Opening	**Topic:**	**Opening & Welcome**
08:30 -	09:00	Sander von Benda-Beckmann
Session	**Topic:**	**Baleen whale detection and classification**
09:00 -	09:15	D. Parry: *Latent Diffusion Model Based Spectrogram Augmentation for Improved Baleen Whale Call Detector Robustness*
09:15 -	09:30	M. Meister: *A Convolutional Neural Network to detect bowhead whale vocalizations in passive acoustic data from the Arctic Ocean*
09:30 -	09:45	X. Mouy: *Using deep learning and dynamic visualizations to efficiently detect minke whales across the Atlantic Ocean*
09:45 -	10:00	A. Napoli: *Domain Shift in Passive Acoustic Monitoring*
10:00 -	10:30	*COFFEE BREAK*
Session	**Topic:**	**Detection, classification of echolocation clicks**
10:30 -	10:45	K. Merkens: *Classification updates for Kogia spp., compared to Narrow-Band High Frequency (NBHF) clicks from other species, and across multiple instrument types.*
10:45 -	11:00	E. T. Griffiths: *Automatic detection of spectra-banded echolocation clicks in Skagerrak, North Sea*
11:00 -	11:15	T. Webber: *Diving into Deep Learning to find Risso's dolphins Echolocation Clicks in Scottish Waters*
11:15 -	11:30	T. Sakai: *Beyond performance - advanced techniques and lessons learned from training a neural network to classify visual representations of beaked whale echolocation clicks*
11:30 -	11:45	D. Mellinger: *Near-real-time detection of odontocete echolocation clicks from a glider*
Poster Speed T	**Topic:**	**Detection, classification of echolocation clicks**
11:45 -	12:00	M. Garcia: *Evaluation of an abbreviated, fully unsupervised approach for classification of odontocete echolocation clicks*
		Y. Viana: *Classification performance in different signal types across odontocete's mixed species groups*
		G. Gubnitsky: *Fully Automatic Detection and Classification of Sperm Whale Codas*
		J. Beesau: *Comparing F-POD delphinid and porpoise click detections with ground truth manual annotation*
		C. Haas: *Using passive acoustic monitoring to investigate northern bottlenose whale (Hyperoodon ampullatus) migration theories within the eastern North Atlantic*
		L. Berkenbaum: *Analysis of cachalot dialogues, click by click, an ethoacoustical approach*
		F. Malige: *Tools for the classification of small NBHF species in southern Chile* (online)
12:00 -	13:30	*LUNCH & POSTER SESSIONS*
Session	**Topic:**	**Detection, classification of North Atlantic Right Whales**
13:30 -	13:45	L. Ferguson: *Bounding Box-Based Object Detection for Whale Vocalizations* (online)
13:45 -	14:00	S. Jarvis: *Automated detection and classification of North Atlantic right whale calls using an ensemble of pair-wise classifiers*
14:00 -	14:15	F. Frazao: *An open-source deep learning model for North Atlantic right whale gunshot identification*
14:15 -	14:30	J. Tatarowicz: *Neural Network-Based Detection and Classification for North Atlantic Right Whale Upcalls: Performance, Deployment, and Generalization to Unseen Environments*
14:30 -	14:45	E. White: *Can one model do it all? Exploring the application of multi-sound source detection algorithms to new marine soundscapes*
14:45 -	15:00	R. Cohen: *Learning from birds to find whales: Efficacy of transfer learning for detection and classification of North Atlantic right whale upcalls* (online)
15:00 -	15:30	*COFFEE BREAK*
Session	**Topic:**	**Detection, classification of Odontocetes using mixed call types**
15:30 -	15:45	S. Fregosi: *Considerations when applying classification models across recording platforms: A case study with Hawaiian false killer whales*
15:45 -	16:00	T. Kleyn: *Cumulative prediction yields accurate species ID: presenting new acoustic classifiers for delphinids of the northeast Atlantic*
16:00 -	16:15	Y. Barkley: *Fine-tuning acoustic classifiers for false killer whale populations: Insights from sensitivity analyses* (online)
Session	**Topic:**	**Distributed acoustic sensing and autonomous sensors**
16:15 -	16:30	L. Bouffaut: *First glimpses into the frequency response of Distributed Acoustic Sensing to blue and fin whale calls as a function of gauge length*
16:30 -	16:45	G. Goestchel: *Comparison of Detection Techniques for Fin Whale Calls in a Distributed Acoustic Sensing Dataset: A Step Towards Automated Localization*
16:45 -	17:00	M. Hyer: *Robust real-time detection of right whale upcalls using the Medusa acoustic buoy*
Poster Speed T	**Topic:**	**Novel sensor systems & Applications of DCL**
17:00 -	17:30	E. Horeh: *A Comparison of Two Distributed Acoustic Sensing Systems for Recording Marine Mammal Vocalizations* (online)

H. Glotin: *OPALE : a high resolution multistream audiovisual mobile antenna for cetacean ethoacoustics*
G. Bekki: *Detection and localisation of Sperm Whales using multiple hydrophones on several gliders*
D. Risch: *Glider-based passive acoustic monitoring of marine mammals*
F. Samaran: *Glider and Whales: using acoustic glider to monitor marine mammals*
T. Bertet: *SERCEL QuietSea, Development and testing of a harbour porpoise detection buoy in Ramsay Sound, Wales*
A. Pereira: *A GAM-based classification of ranges of fin whale calls obtained from single seismic sensors*
V. Premus: *Observations Regarding Pile Driving Noise Measurements on a Towed Hydrophone Array*
B. Padovese: *From Stationary to Mobile Listening Platforms: Adapting Deep Learning Models for NARW Upcall Detection*
F. Penin: *PAMGuard, PAMpal, and R: A Powerful Software Architecture and Its Contribution to the Brazilian Environmental Licensing Process*
M. Torterotot: *CETIROISE : a cetacean passive acoustic observatory in a French Marine Natural Park*
M. Dupont: *Using passive acoustic to better understand dolphins' behaviour around fishing nets in bycatch context*
J. Girardet: *Passive acoustic in Arctic and Mediterranean seas to compare nictemeral rhythms of cetaceans and anthropophony*
A. Allen: *Geographical and seasonal occurrence of minke whale boings in the central and western tropical North Pacific* (online)

Wednesday June 5

Session	**Topic:**	**Detection, classification of odontocete whistles**
08:30 -	08:45	A. Constaratas: *Classification of dolphin whistles from the Adriatic Sea*
08:45 -	09:00	R. Diamant: *Robustness assessment of a dolphin whistle detector in the Red Sea and on the DCLDE11 dataset*
09:00 -	09:15	C. Hargrave: *Bottlenose dolphins show clear geographic variation in whistles when controlling for repeated, stereotypical signals*
09:15 -	09:30	H. LeBlond: *The MIRRF classifier for PAMGuard: Using music information retrieval (MIR) techniques and metadata to differentiate whale calls from shipping noise*
09:30 -	09:45	C. Day: *Use of machine learning and dynamic time warping to categorise large datasets of bottlenose dolphin whistles*
Poster Speed T	**Topic:**	**Detection, classification of odontocete calls**
09:45 -	10:00	J. Oswald: *How can we improve acoustic classifier performance? A meta-analysis of acoustic species classifiers for odontocetes*
		N. van Geel: *A preliminary description of Atlantic white-sided dolphin (Lagenorhynchus acutus) vocalisations*
		A. Berg: *Phase Locked Loops to track harmonic calls in frequency and space*
		C. Biermann: *A transfer learning approach for unsupervised whistle categorisation*
		E. McCloskey: *Inter burst-pulse interval as a species indicator for Pacific delphinids*
		R. Miralles: *Dolphin whistle contour extraction in a noisy environment using the pyknogram representation*
		V. Janik: *Intraspecific geographic variation of rough-toothed dolphin whistles and its influence on acoustic classification*
10:00 -	10:30	*COFFEE BREAK*
Session	**Topic:**	**Detection and classification of multiple species**
10:30 -	10:45	M. Baumgartner: *Detection and classification of marine mammal sounds over a wide band of frequencies*
10:45 -	11:00	L. Kitchell: *Advancing Automated Acoustic Monitoring through Self-Supervised Learning: Applications in Marine Mammal Detection and Classification*
11:00 -	11:15	M. Thomas: *Not just research: operational use of deep learning models for PAM*
11:15 -	11:30	G. Dubus: *Improving automatic detection with supervised contrastive learning: application with low-frequency vocalizations*
11:30 -	11:45	D. Woodrich: *A generalized deep-learning approach for difficult signal detection challenges in passive acoustic datasets* (online)
Poster Speed T	**Topic:**	**Detection, classification of baleen whales**
11:45 -	12:00	G. Dubus: *First attempt at building a mini DCASE-like data challenge for the DCLDE workshop*
		T. Yack: *Evaluating Temporal and Spatial Variability in North Atlantic Right Whale Upcall Detection and Classification Performance Over a 13-Year Period using PAMGuard Software*
		T. Awbery: *The Application of a North Atlantic-wide Minke Whale Detector to a Large-Scale Recording Array on the West Coast of Scotland*
		P. Dugan: *Fin Whale 20Hz Inner Note Interval-Gram (20Hz INI-Gram)*
		D. Lechner: *Evidence of Synchronized Calls of Likely Balaenoptera Musculus*
		C. Parserisas: *A new deep learning model evaluated on the Antarctic benchmark for baleen whale calls*
		S. Chavin: *Time-Frequency Exploration of the Repertoire and Evolution of Humpback Whale Songs in the Caribbean Sea*
12:00 -	13:30	*LUNCH & POSTER SESSIONS*

Session	**Topic:**	**Artificial intelligence, machine learning and data management**
13:30 -	13:45	M. Roch: *Data Management for Detection, Classification, and Localization*
13:45 -	14:00	L. Transue: *Automatic detection of humpback whale calls: a comparison between a machine-learning convolutional neural network (CNN) detector and the Low-Frequency Detection Classification System (LFDCS)*
14:00 -	14:15	A. Olcay: *Deep Learning-Based Underwater Sound Classification Using Stacked Cepstral Features*
Discussion	**Topic:**	**Artificial intelligence, machine learning and data management**
14:15 -	15:00	Discussion
15:00 -	15:30	*COFFEE BREAK*
15:30 -	17:30	*SOCIAL EVENT*

Thursday June 6

Session	**Topic:**	**Special session dedicated to Prof. Gianni Pavan**
08:30 -	08:45	W. Zimmer: *Introduction*
08:45 -	09:00	W. Zimmer: *Signal Processing Considerations for use of compact Volumetric Acoustic Sensors*
09:00 -	09:15	R. Machado: *The first step in the acoustic classification of beaked whales in the Amazon Mouth Basin*
09:15 -	09:30	L. Garrobé: *Using Variational Auto-Encoders and Temporal Convolutional Networks to classify bioacoustics data from a weakly labelled training set*
09:30 -	09:45	C. Martin: *Rough-toothed dolphin exposures to U.S. Navy mid-frequency active sonar at the Pacific Missile Range Facility, Hawai'i*
Poster Speed T	**Topic:**	**Application of DCL**
09:45 -	10:00	J. Rychen: *Communication of killer whales engaging in carousel feeding recorded with a large baseline hydrophone array*
		S. Espirito Santo: *An Initiative for whale Detection in the Santos Basin, Brazil: Through Passive Acoustic Methods*
		X. Raick: *Preliminary investigation of odontocete acoustics in French Polynesia*
		G. Jankauskaite: *Leveraging citizen science in passive acoustic monitoring of cetaceans*
		W. Decrop: *Classifying vessels and co-occurance with mammals using CNNs based on underwater acoustics*
		R. Morrissey: *Deep Ocean Prey Mapping from bottom mounted bidirectional nodes*
		S. Tabutt: *CAB Guardian: Detections and Bearings from a 3 Month Deployment*
10:00 -	10:30	*COFFEE BREAK*
Session	**Topic:**	**Localisation using large baseline arrays**
10:30 -	10:45	E. Nosal: *ATDOA (asynchronous time difference of arrival): TDOA-based method to localize multiple sound sources using autonomous receivers*
10:45 -	11:00	P. Gruden: *MAMBAT: a framework to track and localize multiple marine mammals with wide baseline, stationary arrays*
11:00 -	11:15	L. Tenorio-Hallé: *Passive acoustic tracking of Rice's whales in the northeastern Gulf of Mexico using a wide-baseline array* (online)
Session	**Topic:**	**Density estimation of odontocetes**
11:15 -	11:30	J. Macauley: *The influence of toothed whale behaviour on detection probability and the implications for passive acoustic monitoring*
11:30 -	11:45	I. Bopardikar: *Density estimation of Indo-Pacific finless porpoises using passive acoustic monitoring off the Sindhudurg coast of India*
11:45 -	12:00	H. Myers: *Four years of daily acoustic abundance estimates of fish-eating and mammal-eating killer whales in the Gulf of Alaska*

12:00 -	13:30	*LUNCH & POSTER SESSIONS*
Session	**Topic:**	**Density estimation of baleen whales**
13:30 -	13:45	D. Harris: *Adapting distance sampling to account for non-ranging instruments: an example with Ocean Bottom Seismometer data for baleen whale density surface estimation*
13:45 -	14:00	Y. Doh: *Using stereophonic passive acoustics to study humpback singers' interactions*
14:00 -	14:15	F. Petersma: *Using acoustic spatial capture recapture to estimate call density of Bowhead whales when many detections are false positives*
14:15 -	14:30	K. Seger: *Bearing method for density estimation: a comparison of performance using CTBTO data at Wake Island and Diego Garcia*
Session	**Topic:**	**Localisation of North Atlantic Right Whales using the DLCDE2024 dataset**
14:30 -	14:45	C. Binder: *Listening to whales from the sky: How Royal Canadian Airforce sonobuoy data contributes to detection, classification, localization, and density estimation research* (online)
14:45 -	15:00	L. Hsu: *Localization of North Atlantic Right Whales (NARWs) in the Gulf of St. Lawrence using Passive Acoustics*
15:00 -	15:30	*COFFEE BREAK*
Session	**Topic:**	**Localisation of North Atlantic Right Whales using the DLCDE2024 dataset (continued)**
15:30 -	15:45	B. Miller: *Analysis of the DCLDE 2024 North Atlantic right whale sonobuoy dataset using PAMGuard*
15:45 -	16:00	K. Thebeau: *Localizing North Atlantic Right Whales Using a Deformable Sonobuoy Grid*
16:00 -	16:15	R. Gehrmann: *North Atlantic right whale detection and localisation using deep learning, nonlinear Bayesian inversion, and sound propagation modelling* (online)
16:15 -	16:30	A. von Benda-Beckmann: *Bayesian localisation of NARW using an autonomous field of sonobuoys*
Discussion	**Topic:**	**Localisation of North Atlantic Right Whales using the DLCDE2024 dataset**
16:30 -	17:30	Discussion

Friday June 7

Session	**Topic:**	**Localisation using compact arrays**
08:30 -	08:45	A. Laferriere: *Three-dimensional localization of dolphin sounds from an underwater drifter using short-aperture arrays and acoustic vector sensors*
08:45 -	09:00	L. Baggett: *Diving Deep: 3D Tracking of Cuvier's Beaked Whale Diving Behavior in Southern California using Fixed Hydrophone Arrays*
09:00 -	09:15	H. Frouin-Mouy: *Diving behavior and acoustic-based detection range inferred from three-dimensional tracking of beaked whales in the Gulf of Mexico*
09:15 -	09:30	I. Urazghildiiev: *Estimating the number of animals, animal tracks and the motion parameters of vocalizing marine mammals using compact hydrophone arrays*
Poster Speed T	**Topic:**	**Localisation, calling rates, and density estimation**
09:30 -	10:00	J. Theriault: *North Atlantic Right Whale (NARW) Line-Array Beamformer Performance using Energy Detection and Pitch-Tracking Classification Metrics*
		L. Lehnhoff: *Free-ranging bearing joint to vocal analysis: application to whistles of short-beaked common dolphins*
		R. Dréo: *Trajectory estimate of baleen whales using a single OBS in the Indian Ocean*
		J. McCullough: *Combining visual and acoustic subgroup localization efforts to examine movement of false killer whales*
		A. Carroll: *Vocal Behavior of Visually-Verified North Atlantic Minke Whales off Jacksonville, Florida, in Winter*
		J. Mura: *Synchronous aerial and acoustic surveys to estimate porpoise emission rate*
		I. Tolkova: *Localization-Derived Acoustic Detection Function for Cuvier's Beaked Whales Offshore Guam*
		K. Gkikopoulou: *Does the beam pattern matter? Impacts of different assumptions on off axis source level of echolocating clicks for PAM density estimation of deep diving species*
		L. Thomas: *Right whale call density estimates from the workshop dataset via spatial capture-recapture*
		R. Hilmo: *Applying distance sampling to estimate densities of fin whale calls recorded by ocean bottom seismometers in the Marianas region*
		G. Arrieta: *Calling Behavior and Localization of Blue Whales in Southern California*
10:00 -	10:30	*COFFEE BREAK*
Session	**Topic:**	**Localisation of marine mammals**
10:30 -	10:45	G. Alongi: *Strengths and weaknesses of using DCLDE algorithms to track baleen whales and examine their behavior using long-term acoustic recordings with a large-scale hydrophone array*

10:45 -	11:00	M. Matei: *Cetacean multi-species detection, classification, localization, and contact collation routine using PAMGuard*
11:00 -	11:15	A. Pereira: *A comparison of methods to estimate ranges of fin whale calls using seismic data*
Discussion	**Topic:**	**Contact association in localisation of marine mammals**
11:15 -	12:00	Discussion
12:00 -	13:30	*LUNCH & POSTER SESSIONS*
Session	**Topic:**	**Density estimation of marine mammals**
13:30 -	13:45	S. Parks: *Validation of Passive Acoustic Density Estimation Approaches for Southern Right Whales (Eubalaena australis)*
13:45 -	14:00	A. Cook: *Estimating Rice's Whale (Balaenoptera ricei) Call Density in the Northeastern Gulf of Mexico Using Spatially Explicit Capture-Recapture Analysis*
14:00 -	14:15	T. Marques: *ACCURATE passive acoustic monitoring density estimation: are we there yet?*
Discussion	**Topic:**	**Density estimation of marine mammals**
14:15 -	15:00	Discussion
15:00 -	15:30	*COFFEE BREAK*
Discussion	**Topic:**	**Closing of DCLDE2024 & Outlook to DCLDE2026**
15:30 -	16:00	Discussion
16:00		**WORKSHOP CLOSED**