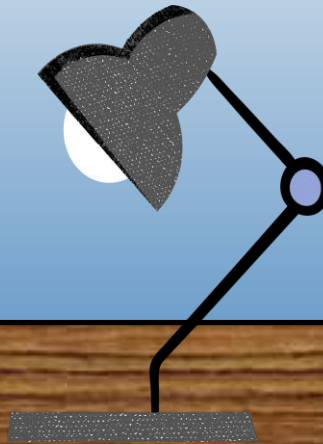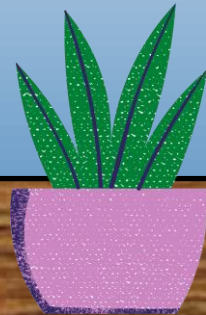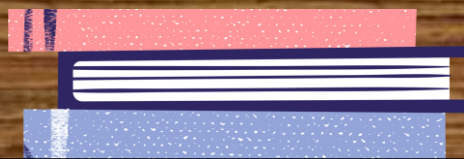# AQL 2021

The 14th International Conference on Advances in Quantitative Laryngology, Voice and Speech Research

Welcome to AQL 2021!

PROGRAM SCHEDULES

June 07

TIME	PARTICIPANT/SPEAKER	PRESENTATION
8:00-8:15am	Lady Cantor-Cutiva	Welcome
	Laryngeal Imaging	
8:15-8:30am	*Invited Speaker Guillermo Campos*	Laryngeal Images - The Devil is in the Details
8:30-8:45am	*Bernhard Jakubass*	Comparison of Acoustic Signal Quality with respect to Glottal Closure between Old and Young Ex Vivo Sheep Larynges
8:45-9:00am	*Charles Farbos De Luzan*	Quantification of the Effects of Posterior Cricoid Reduction in Excised Canine Larynges
9:00-9:15am	*Wilson Azure*	Comparison of Two Surgical Methods to Simulate Unilateral Vocal Fold Paralysis in an Ex Vivo Rabbit Model
9:15-9:30am	*Jennifer Vojtech*	Effects of Age, Sex, and Parkinson's Disease on Kinematic and Acoustic Features of Phonatory Offset
9:30-9:45am	*Chair of session - Luisa Fernanda Ángel*	Q&A
9:45-10:00am		Coffee - Young investigator

June 07

TIME	PARTICIPANT/SPEAKER	PRESENTATION
Modelling and simulation of vocal physiology and biology		
10:00-10:15am	*Molly Stewart*	Investigating Blunt Force Trauma to the Larynx: The Role of Vertical Misalignment and VF Scarring
10:15-10:30am	*Jesús Parra*	Discovering Underlying Physical Parameters from Daily Phonotrauma Index Distributions using Monte Carlo Simulations of a Low-Dimensional Voice Production Model
10:30-10:45am	*Elias Sundstrom*	Fluid-Structure Interaction and Dynamic Mode Decomposition for quantification of intraglottal flow structures
10:45-11:00am	*Vinod Devaraj*	Modelling of Amplitude Modulated Vocal Fry Glottal Area Waveforms using an Analysis-by-synthesis Approach
11:00-11:15am	*Reinhard Veltrup*	Multi-modal Ex Vivo Setup for 3D Imaging of The Medial and Superior Vocal Fold Surfaces in Hemi-larynges
11:15-11:30am	*Russell Banks*	Stimulating Conversation: Simulating Non-invasive Neuromodulation of Voice and Speech Muscles
11:30-11:45am	*Mohamed Serry*	Physics of Phonation Offset: Towards Understanding RFF Observations
11:45-12:00pm	*Chair of session*	Q&A
12:00-1:15pm		Lunch
Workshop		
1:15pm-3:30pm	*Lab Colombian Police*	Forensic Voice Analysis

June 08

TIME	PARTICIPANT/SPEAKER	PRESENTATION
8:00-8:15am	**Lady Cantor-Cutiva**	**Announcements**
	Voice Assessment	
8:15-8:30am	*Keynote Speaker Edwin Yiu*	Alternative voice therapy methods for clinical practice
8:30-8:45am	*Laura Toles*	Relationships between Daily Speaking Voice Use and Personality in Singers with Healthy Voices
8:45-9:00am	*Maria Del Carmen Dalmasso*	Voz Smart
9:00-9:15am	*Matti Groll*	The Relationship between Voice Onset Time and Increases in Vocal Effort and Fundamental Frequency
9:15-9:30am	*Christian Castro*	Lombard Effect Retention after Noise Removal in Individuals with Phonotraumatic and Non-phonotraumatic Vocal Hyperfunction
9:30-9:45am	*Pasquale Bottalico*	Intelligibility of Dysphonic Speech in Primary Classrooms
9:45-10:00am	*Chair of session*	**Q&A**
10:00-10:15am		**Coffee - Young investigator**

June 08

TIME	PARTICIPANT/SPEAKER	PRESENTATION
Machine Learning in Voice and Speech Research		
10:15-10:30am	*Invited Speaker Hamzeh Ghasemzadeh*	A Machine-learning Approach to Finding Acoustic Signatures of Voice and Motor-speech Disorders during Connected Speech
10:30-10:45am	*Carlos Alberto Calvache Mora*	Analysis and Comparison of Different Biomechanical Models of Vocal Production
10:45-11:00am	*Yixiang Gao*	Classification of Vocal Fatigue using Neck sEMG with Leave-One-Subject-Out Testing
11:00-11:15am	*Yixiang Gao*	Explore Voice Production Variability through Neck sEMG Clustering - Challenge for Accurate Labeling of Vocal Fatigue
11:15-11:30am	*Rodrigo Maximiliano Jerez*	Clinical Voice Box: Desarrollo de una App para Dispositivos Móviles
11:30-11:45am	*Chair of session - Pasquale Bottalico*	**Q&A**
11:45-1:15pm		**Lunch**

June 08

TIME	PARTICIPANT/SPEAKER	PRESENTATION
	Covid-19 and Voice and Speech Research - Voice Assessment	
1:15-1:30pm	*Invited Speaker Jeff Searl*	Covid-19: Impact on SLP Clinical Activities and Patient Experiences
1:30-1:45pm	*Lady Cantor-Cutiva*	Effect of the Recording Instrument on Detecting Changes on Voice Acoustic Parameters after SOVT
1:45-2:00pm	*Defne Abur*	Impaired Auditory Discrimination and Sensorimotor Integration in Hyperfunctional Voice Disorders
2:00-2:15pm	*Ian Howard*	Automatic Identification of Voice Pathology using Deep Neural Networks
2:15-2:30pm	*Miriam Van Mersbergen*	Glottal Parameters Contributing to Properties of Particulate Emission during Speech, Singing, and Breathing
2:30-2:45pm	*Chair of session - Keiko Ishikawa*	**Q&A**
2:45-3:30pm	*Organizing Committee*	**Town hall Meeting**
3:30pm	*Lady Cantor-Cutiva*	**Cultural Activity - Colombian Gold Museum (External Link)**

June 09

TIME	PARTICIPANT/SPEAKER	PRESENTATION
8:00-8:15am	*Lady Cantor-Cutiva*	Welcome
	Modelling and simulation of vocal physiology and biology	
8:15-8:30am	*Keynote Speaker Jan G. Švec*	Kinematic Mucosal Wave Model of the Vocal Folds for Simulating Kymographic Images
8:30-8:45am	*Sridhar Bulusu*	Convolutional Neural Networks for Extracting Kinematic Vocal Fold Parameters from Videokymograms
8:45-9:00am	*Sheng Li*	Effects of Vertical Glottal Duct Length on Intraglottal Pressures in the Uniform and Convergent Glottis
9:00-9:15am	*Rodrigo Manríquez*	Calibration Uncertainty of Impedance-based Inverse Filtering from Neck Surface Acceleration
9:15-9:30am	*Zheng Li*	PhotoSim: A Patient-Specific Computational Modeling Suite for Phonosurgery
9:30-9:45am	*Sebastian Falk*	Simvoice – Parameter Study on Glottal Insufficiency and Aperiodic Vocal Fold Oscillations
9:45-10:00am	*Stefan Schoder*	Simvoice – Visualization of Aeroacoustic Sources in the Human Voice Production Process
10:00-10:15am	*Chair of session - Luisa Fernanda Ángel*	**Q&A**
10:15-10:30am	**Coffee - Young investigator**	

June 09

TIME	PARTICIPANT/SPEAKER	PRESENTATION
Machine Learning and engineering applications		
10:30-10:45am	*Keynote Speaker Dimitar Delyiski*	Precision Assessment of Dysphonic Speech: From Vocal Fold Physiology to Perception
10:45-11:00am	*Ahmed Yousef*	Automated Detection and Segmentation of Glottal Area using Deep-Learning Neural Networks in High-Speed Videoendoscopy during Connected Speech
11:00-11:15am	*Gregor Peters*	Viscoelasticity of Human Laryngeal Mucus from the Vocal Folds
11:15-11:30am	*Juan Cortés*	Relationships between the Neck-surface Acceleration Parameters of the Daily Phonotrauma Index and Glottal Aerodynamic Measures in Vocally Healthy Females
11:30-11:45am	*Emiro Ibarra*	A Machine Learning Framework for Estimating Subglottal Pressure During Running Speech from Glottal Airflow Measures
11:45-12:00pm	*Chair of session*	**Q&A**
12:00-1:15pm	**Lunch**	

June 09

TIME	PARTICIPANT/SPEAKER	PRESENTATION
e-Health and m-Health		
1:15-1:30pm	*Keynote Speaker Adrian Castillo-Allendes*	Challenges of voice therapy during the Covid-19 pandemic
1:30-1:45pm	*Daryush Mehta*	Ambulatory Monitoring of the Lombard Effect During the Daily Life of Patients with Hyperfunctional Voice Disorders
1:45-2:00pm	*Elizabeth Grillo*	A Nonrandomized Trial for Student Teachers of an In-person and Telepractice Global Voice Prevention and Therapy Model with Estill Voice Training assessed by the VoiceEvalU8 app
2:00-2:15pm	*Hasini Weerathunge*	Accuracy of Acoustic Measures of Voice via Telepractice Videoconferencing Platforms
2:15-2:30pm	*Katherine Marks*	Psychometric Analyses of Ecological Vocal Effort Ratings during Ambulatory Voice Monitoring
2:30-2:45pm	*Adrian Castillo-Allendes*	Posture and Phonation; Suprahyoid, Infrahyoid, and Respiratory Muscle Activity during Body Position Modifications
2:45-3:00pm	*Kimberly Dahl*	Reliability of Expert Auditory-perceptual Evaluations conducted via Telepractice Platforms
3:00-3:15pm	*Keiko Ishikawa*	Development of the Standardized Patient Training for Remote Voice Evaluation
3:15-3:30pm	*Chair of session - Gonzalo Inostroza*	Q&A
3:30-4:00pm	Coffee - Young investigator	

June 09

TIME	PARTICIPANT/SPEAKER	PRESENTATION
	Poster Session	
4:00-4:30pm	*Gonzalo Inostroza-Moreno*	Case Presentation: Rehabilitation of Bilateral Cordal Paralysis, Secondary to Prolonged Intubation in a Patient with Sars-cov-2, with left Posterior Cordectomy using Laser Technique
	Gbenga Omotara	Using Machine Learning Algorithms in Identifying Speech Phonemes
	Patrick Schlegel	Asymmetric Superior Laryngeal Nerve Stimulation: Cepstral Peak Prominence, Glottis Symmetry and Perturbation
	Ángela Patricia Atará-Piraquive	Effect on Vocal Doses of a Workplace Vocal Health Promotion Program
	Christian Castro	Concentration of Hydroxide Peroxide in Exhaled Breath Condensate after Phonotrauma: A Noninvasive Technique for Measure Vocal Inflammation
	Didier Demolin	The glottal vowels of nasa yuwe

June 09

TIME	PARTICIPANT/SPEAKER	PRESENTATION
	Poster Session	
4:30-5:00pm	*Matti Groll*	Evaluating the Relationship between Relative Fundamental Frequency and the End of Vocal Fold Collision in Voicing Offset
	Divya Bhaskaran	Initial Data on Long-Term Effects of Laryngeal Vibro-Tactile Stimulation in People with Spasmodic Dysphonia
	Keiko Ishikawa	Feasibility of Landmark-based Approaches for Monitoring Speech Production Changes Among Patients with Muscle Tension Dysphonia: A Comparative Study
	Danilo Leite	Machine learning classifiers: study to categorize healthy and pathological voices
	Ip Carman	Applying Ultrasound Imaging to Visualize Laryngeal Structures and Functions in the Pediatric Population
	Takeshi Ikuma	Effect of Voice Bifurcations on Acoustic and Endoscopic Measures: Case Studies
	Jenny Cárdenas	Herramientas Auto-informadas Aplicadas en Pacientes con Parálisis Unilateral de Cuerdas Vocales: Una Revisión Sistemática de la Década 2010-2020

📅 June 10

TIME	PARTICIPANT/SPEAKER	PRESENTATION
8:00-8:15am	*Lady Cantor-Cutiva*	Announcements
	Modelling and simulation of vocal physiology and biology	
8:15-8:30am	*Keynote Speaker Maria Eugenia Dajer*	
8:30-8:45am	*Mohsen Motie-Shirazi*	Influence of a Posterior Glottal Opening on Dissipated Collision Power: Synthetic Self-oscillating Vocal Fold Investigations
8:45-9:00am	*Gabriel Alejandro Alzamendi*	Investigating Antagonistic Muscle Control in Non-phonotraumatic Vocal Hyperfunction Using a Triangular Body-cover Model of the Vocal Folds
9:00-9:15am	*Mohammadreza Movahhedi*	A Computational Study of the Effect of Unilateral Vocal Fold Paralysis and Type I Medialization on Voice Production
9:15-9:30am	*Xiaojian Wang*	Testing the Validity of the Quasi-steady Assumption in Vocal Fold Vibration
9:30-9:45am	*Siddarth Khosla*	Acoustics and Aerodynamics in Glottal vs Infraglottal Medialization
9:45-10:00am	*Marion Semmler*	Aerodynamic Analysis of the Inspiration for A Unilateral Vocal Folds Paralysis in a Synthetic Larynx Model
10:00-10:15am	*Chair of session - Luisa Fernanda Ángel*	Q&A
10:15-10:30am	Coffee - Young investigator	

June 10

TIME	PARTICIPANT/SPEAKER	PRESENTATION
Machine Learning in Voice and Speech Research		
10:30-10:45am	*Keynote Speaker Maria Dietrich*	Accounting for Personality traits in the Classification of Vocal Fatigue using sEMG
10:45-11:00am	*Jarrad Van Stan*	Use of the Daily Phonotrauma Index (DPI) to Quantify Treatment-related Changes in the Daily Voice Use of Patients with Phonotrauma
11:00-11:15am	*Charles Farbos De Luzan*	Using Modal Decomposition to Identify Coherent Structures in the Intraglottal Flow Region
11:15-11:30am	*Chuayo Feng*	Automated Intra-speaker Voice Quality Classification in Connected Speech: an X-vector based Deep Learning Approach
11:30-11:45am	*Mark Berardi*	Automatic Segmentation of Relative Fundamental Frequency from Continuous Speech
11:45-12:00pm	*Chair of session - Miriam van Mersbergen*	Q&A
12:00-1:15pm	Lunch	

June 10

TIME	SPEAKER/PARTICIPANT	PRESENTATION
		Laryngeal Imaging
1:15-1:30pm	*Keynote Speaker Cara E. Stepp*	
1:30-1:45pm	*Ingo Titze*	Quantitative Laryngology Under a Microscope
1:45-2:00pm	*Andreas Kist*	OpenHSV: An Open Platform for Laryngeal High-speed Videoendoscopy
2:00-2:15pm	*Daryush Mehta*	3D Laryngeal Imaging Integrating Parallel Optical Coherence Tomography with Videostroboscopy
2:15-2:30pm	*Hamzeh Ghasemzadeh*	Spatial Segmentation of High-speed Videoendoscopy with Sub-pixel Resolution using Adaptive Thresholding and Double Curve Fitting
2:30-2:45pm	*Jennifer Vojtech*	Acoustic Identification of the Voicing Boundary during Intervocalic Offsets and Onsets based on Vocal Fold Vibratory Measures
2:45-3:00pm	*Daryush Mehta*	In Vivo Measurement of Intraglottal, Subglottal, and Vocal Fold Collision Pressures In A Hemilaryngectomy Patient
3:00-3:15pm	*Hamzeh Ghasemzadeh*	Indirect Spatial Calibration of the Horizontal Plane of Endoscopic Laryngeal Images: How to Do It and What to look for
3:15-3:30pm	*Chair of session - Russell Banks*	Q&A
3:30-4:00pm	Coffee - Young investigator	

June 10

TIME	SPEAKER/PARTICIPANT	PRESENTATION
Social and Cultural Activities		
4:00-4:30pm	Organizing Committee	Student Board - AQL meeting
4:30-5:30pm	*Lady Cantor-Cutiva*	Cultural Activity - Virtual Tour (external link)
5:30pm	*Lady Cantor-Cutiva*	Adjourn

Thank you!