



**ALLIANCE FOR
OPEN MEDIA
RESEARCH**

Symposium 2019

Monday, October 21st

**Address: Google LLC, 55 Spear Street, San Francisco, CA 94105
Room: US-SFO-1MST-7-Ohlone People**

Registration:

08:30 - 09:30

Registration & Breakfast

Opening & Status:

09:30 - 09:40

Welcome & Overview

09:40 - 10:30

AV1 Status from Service Providers

10:30 - 10:50

Coffee

Coding Algorithms:

10:50 - 11:15

Adaptive Optimal Linear Estimators for Enhanced Motion Compensated Prediction, Kenneth Rose (UCSB)

11:15 - 11:40

What Machines Can Learn from Humans About Lossy Compression, Tsachy Weissman (Stanford University)

11:40 - 12:05

A Switchable Region-Based Coding Tool for the AV1 Video Codec, Maggie Zhu (Purdue University)

12:05 - 12:30

Incorporating Physical Modeling into Deep Generative Networks for Image and Video Compression, Aswin Sankaranarayanan (Carnegie Mellon University)

12:30 - 13:30

Lunch

13:30 - 13:55

Coding Efficiency Evaluation of AV1 Coding Tools, Ryan Lei (Intel)

13:55 - 14:20

An Overview of New Experimental Coding Tools, Sarah Parker (Google)

Performance & Optimization:

14:20 - 14:45

Evaluating Video Codecs Through Objective and Subjective Assessments, Fan Zhang (Bristol University)

14:45 - 15:10

Speeding up VP9 Intra Encoder with Hierarchical Deep Learning Based Partition Prediction, Somdyuti Paul (University of Texas at Austin)

15:10 - 15:35

Coffee

15:35 - 16:00

TBD, Nathan Egge (Mozilla)

16:00 - 16:25

Learning-Based AV1 Optimization for VoD and RTC Use Cases, Jinaa Liu (Visionular)

Still Picture:

16:25 - 16:50

AVIF: Overview and Compression Performance, Cyril Concolato (Netflix)

16:50 - 17:15

Applying Video Coding Tools to WebP Images, Pascal Massimino (Google)

**Address: Google LLC, 345 Spear Street, San Francisco, CA 94105
Room: US-SFO-SPE-7-Deck Lounge**

18:00 - 21:00

Social Event



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Symposium 2019

Tuesday, October 22nd	
Address: Google LLC, 55 Spear Street , San Francisco, CA 94105 Room: US-SFO-1MST-7-Ohlone People	
08:00 - 09:00	Registration: Registration & Breakfast
ML-Based Encoding:	
09:00 - 10:00	Keynote: Opportunities to use Neural Media Compression, George Toderici (Google)
10:00 - 10:25	<i>Deep Learning for Image Compression, Yao Wang (NYU)</i>
10:25 - 10:50	<i>Deep Neural Network Based Frame Reconstruction For Optimized Video Coding - An AV2 Approach, Dandan Ding (Hangzhou Normal University)</i>
10:50 - 11:15	Coffee
11:15 - 11:40	<i>A Generalized Deep Perceptual Optimizer, Yiannis Andreopoulos (iSize)</i>
Perceptual Metrics:	
11:40 - 12:05	<i>Perceptually Optimizing Deep Image Compression, Li-Heng (University of Texas at Austin)</i>
12:05 - 12:30	<i>On Perceptual Coding: Quality, Content Features and Complexity, Patrick Le Callet (University of Nantes)</i>
12:30 - 13:30	Lunch
Physical Modeling:	
13:30 - 13:55	<i>Informing Video Compression With Physical Simulation, Theodore Kim (Yale University)</i>
General Compression:	
13:55 - 14:20	<i>Mode-dependent Data-driven Transforms for AV1, Antonio Ortega (USC)</i>
14:20 - 14:45	<i>Measuring Video Quality with VMAF: Why You Should Care, Christos Bampis (Netflix)</i>
14:45 - 15:10	<i>Motion Based Video Frame Interpolation, Anil Kokaram (Trinity College Dublin)</i>
15:10 - 15:30	Coffee
AV1 Implementers Forum:	
15:30 - 15:45	<i>Real-Time AV1 with SVC support in WebRTC, Alex Gouillard (CoSMo)</i>
15:45 - 16:00	<i>AV1 in the MilliCast Real-Time (>200ms) Streaming Platform: The System Level Point of View, Richard Blakely (Millicast)</i>
16:00 - 16:15	<i>SVT-AV1 Encoder, Nader Mahdi (Intel)</i>
16:15 - 16:30	<i>High-efficiency AV1 Compression Using dAV1d and Eve, Ronald Bultje (Two Orioles)</i>
16:30 - 16:45	<i>Overview of FOMS Workshop and Open Issues, Michael Dale (Ellation)</i>
Panel Session:	
16:45 - 17:15	Industry & Academia - How can we Work Together?
17:15	Close