

Monday, 21 October

Machine Learning and Artificial Intelligence Technology in Professional Content Creation

Room: San Francisco

Session Chairs: *Thomas Edwards (Walt Disney Television), Alexis Macklin (Greenlight Insights)*

- 9:00 a.m. Using Machine-Learning to Relight Faces—A Case-Study in Applying ML to Post Production Workflows, *Nicolas Moënne-Loccoz, AUTODESK*
- 9:30 a.m. Rotoscope Automation with Deep Learning, *Oscar Estrada, RIT*
- 10:00 a.m. How AI Technology is Dramatically Improving Video Compression for Broadcast and OTT Content Delivery, *Jean-Louis Diascorn, Harmonic, Inc.*

New Compression Techniques and Implementations

Room: San Francisco

Session Chair: *Ben Waggoner (Amazon)*

- 11:00 a.m. Creating Bandwidth-Efficient Workflows with JPEG XS and ST 2110, *Jean-Baptiste Lorent, IntoPIX*
- 11:30 a.m. Speed-Distortion Optimization: Tradeoffs in Open Source HEVC Encoding, *Alexander Giladi, Comcast; Pradeep Ramachandran, Multi-coreware, Inc.*
- 12:00 p.m. MPEG-5 EVC, *Jonatan Samuelsson, Divideon*

Tuesday, 22 October

ST 2110: Making It Real

Room: San Francisco

Session Chairs: *Sara Kudrle (SMPTE VP Education), Thomas Edwards (Walt Disney Television)*

- 9:00 a.m. Strategies for Securing ST 2059-2 PTP Networks, *Nikolaus Kerö, Oregano Systems; Thomas Kernen, Mellanox Technologies*

- 9:30 a.m. Large Scale Deployment of SMPTE 2110: The IP-Live Production Facility, *Chris Swisher and Steve Sneddon, NBCUniversal*
- 10:00 a.m. GPIO Over IP—AMWA IS-07 as a General-Purpose API That Easily Scales, *Arne Bönninghoff, Riedel Communications GmbH & Co. KG*

Cinema Processing and Projection Technology

Room: Sacramento

Session Chairs: *Eric Gsell (Dolby Laboratories), Molly Hill (Dolby Laboratories)*

- 2:00 p.m. How Will We Archive and Preserve the Movies of Tomorrow? *Pierre Hugues Routhier, CBC/Radio-Canada*
- 2:30 p.m. Brightness in Cinema: When is it too bright? *Stelios Ploumis, UBC; Ronan Boitard, MTT Innovation/Barco*
- 3:00 p.m. Film Grain and Film Scanner Noise in HDR Video, *Michael Smith, Wavelet Consulting LLC; Michael Zink, Warner Bros.*

Living with ST 2210 for Live Production

Room: San Francisco

Session Chairs: *Gerard Phillips (Arista Networks), Marc Zorn (Home Box Office)*

- 2:00 p.m. Wide Area Facilities Interconnect with ST 2110, *Andy Rayner, Nevion*
- 2:30 p.m. How We Tested the Media Over IP Devices to Build Our New Facility, *Félix Poulin, CBC/Radio-Canada; Willem Vermost, EBU*
- 3:00 p.m. How to Successfully Commission a SMPTE ST 2059/PTP System, *Leigh Whitcomb, Imagine Communications*

New Techniques in Audio

Room: Sacramento

Session Chair: *Linda Gedemer (Source Sound)*

- 4:00 p.m. Ambidio: An Introduction to Immersive Stereo, Workflow, and Evaluation, *Pei-Lun, Ambidio; Steve Morris, Skywalker Sound*
- 4:30 p.m. A New Signal for Measuring Loudspeaker Maximum Linear SPL, *Roger Schwenke, Meyer Sound Laboratories*
- 4:30 p.m. Solid Cinema Screens with Front Sound: Do They Work? *Julien Berry, Delair Labs*

Cloud—An All-Rounder Talent?

Room: San Francisco

Session Chair: Yvonne Thomas (Arvato Systems)

- 4:00 p.m. “Using Infrastructure-As-Code and the Public Cloud to Power On-air Media Creation Platforms,” *Kevin Fornito and Chris Zembower, NBCUniversal*
- 4:30 p.m. How Cloud Technology Is Changing the Live Transcoding Landscape, *Thierry Fautier, Harmonic*
- 5:00 p.m. Live Cloud Ingest Using an Open Approach to RIST, SRT, and Retransmission Protocols, *Love Thyresson, Net Insight*

Wednesday, 23 October

Content and Network Security

Room: San Francisco

Session Chair: Marc Zorn (Home Box Office)

- 9:00 a.m. Security for Discovery and Connection Management of ST 2110 Media Devices, *Arne Bönninghoff, Riedel Communications GmbH & Co. KG*
- 9:30 a.m. A Practical Guide to Securing SMPTE ST 2110 Systems, *Leigh Whitcomb, Imagine Communications*
- 10:00 a.m. Securing Distributed Content Creation Workflows, *Tim Claman, Avid*

8K: The Next Generation of Video

Room: Sacramento

Session Chairs: Peter Putman (ROAM Consulting LLC.), Peter Centen

- 11:00 a.m. 8K Camera Recorder using Organic-Photoconductive CMOS Image Sensor and High-Quality Codec, *Shingo Sato, NHK*
- 11:30 a.m. 1.25-in. 3-CMOS Multi-Functional High-Speed 8K Camera System, *Ryohei Funatsu, NHK*
- 12:00 p.m. Development of New 4K/8K UHD TV Satellite Broadcasting System in Japan, *Katsuya Hayashi, NHK*

Future of Media Distributions

Room: San Francisco

Session Chairs: Glenn Deen (Comcast-NBCUniversal), Ben Waggoner (Amazon)

- 11:00 a.m. How Can OTT Services Match the Quality of Broadcast? *Thierry Fautier, Harmonic*
- 11:30 a.m. IP Network Based Delivery of Coordinated Universal Time for ATSC 3.0 Single Frequency Networks, *Magnus Danielson, Net Insight AB*

- 12:00 p.m. Broadcast Gateway, Heart of ATSC 3.0 Delivery Network, *Jérôme FLOCH*

UHD, HDR, 4K, High Frame Rate

Room: Sacramento

Session Chairs: Sally Hattori, Eric Gsell (Dolby Laboratories)

- 2:30 p.m. HDR and WCG Image Quality Assessment Using Color Difference Metrics, *Anustup Choudhury; Jaclyn Pytlarz, Dolby Laboratories*
- 3:00 p.m. An Investigation of Creative Power and the Value Wide Color Gamut Brings to Motion Picture Mastering, *Jake Zuena, Dolby Laboratories*
- 3:30 p.m. Uniformity Measure for French Cinema, *François Helt and Hans-Nikolas Locher*

Workflow Management (File-Based, Automation)

Room: San Francisco

Session Chairs: Christopher Witmayer (Nascar), Mark Harrison (DPP)

- 2:30 p.m. Data in DNA: The Arrival of DNA-Based Data Storage and Computing Workflow Management (File-Based, Automation), *Nick Gold, CATALOG*
- 3:00 p.m. Automated VFX Pipeline for the Purpose of Servicing the Creation of Downstream Masters, *Jack Watts, Trench Digital LTD; Tomasz Witkowski, Sundog Media Toolkit Ltd.*
- 3:30 p.m. Remote Production Using File-Based Remote Access, *Macky Beheshti, Quantum*

Advances in Display Technologies

Room: Sacramento

Session Chairs: Jaclyn Pytlarz (Dolby Laboratories), David Long (Rochester Institute of Technology)

- 4:30 p.m. Metamerism, Color Ellipses and Color Errors, *Francois Helt*
- 5:00 p.m. ΔEITP is Now ITU-R BT.2124—Is the Industry Ready to Move on from ΔE2000? *Catherine Meininger and Tyler Pruitt, Portrait Displays*

Access and the Global Community of Tech

Room: San Francisco

Session Chair: Kylee Peña

- 4:30 p.m. Auxiliary Video Track in IMF, *Rowan de Pomerai, DPP; Dan Tatut, Marquise Technologies*
- 5:00 p.m. Engagement with the Next-Gen: SMPTE’s Role in K-12, Higher Education, and Other Institutions, *John Shike, Advanced Systems Group, LLC*

(This Program Is Subject to Change)

