

Distinguished Lecturer Series “Leon the Mathematician” at the School of Informatics, Aristotle University of Thessaloniki Greece (<https://www.csd.auth.gr/en/news/lectures>) – Greek Association for Image Processing and Digital Media (<http://gaipdm.web.auth.gr>) - MSc program on Digital Media – Computational Intelligence (<https://dmci.csd.auth.gr>)



INVITED LECTURE

Dr. Ioannis Katsavounidis (Research Scientist, Video Infrastructure, *Facebook*) is going to lecture on

Video Processing @ Scale

at **Classroom H6** (School of Informatics, Mezzanine, Building of the Dept. of Biology) on **Wednesday November 6th, 2019** at **15:15**.

ABSTRACT

Modern video streaming services use modern video codecs, such as AVC, VP9 and AV1, as well as perceptual metrics to optimize performance. We will discuss the importance of video at Facebook, followed by two perceptual video quality metrics, FB-MOS and VMAF. We will then discuss the per-shot convex hull optimization framework called Dynamic Optimizer and show some results on how it can be applied to enhance performance of video transcoding pipelines. Finally, we will show the computational complexity/BD-rate performance tradeoff that is of outmost importance at Facebook as ways to address it by including multiple SW and HW components.

Interested attendees are invited to register [here](#)

About the Speaker:

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Dr. Ioannis Katsavounidis is part of the Video Infrastructure team, leading technical efforts in improving video quality across all video products at Facebook. Before joining Facebook, he spent 3.5 years at Netflix, contributing to the development and popularization of VMAF, Netflix's video quality metric, as well as inventing the Dynamic Optimizer, a shot-based video quality optimization framework that brought significant bitrate savings across the whole streaming spectrum. Before that, he was a professor for 8 years at the University of Thessaly's Electrical Engineering Department in Greece, teaching video compression, signal processing and information theory. He has over 100 publications and patents in the general field of video coding, but also high energy experimental physics. His research interests lie in video coding, video quality, adaptive streaming and hardware/software partitioning of multimedia processing.