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BRK RM 1001 1:30-2:30

# Metamaterial Technologies

Themos Kallos
Co-Founder and Chief Science Officer of Metamaterial Technologies Inc.

## Bio

Themos Kallos is the co-founder and Chief Science Officer of Metamaterial Technologies Inc. He is an experienced electrical engineer with expertise in applied physics, metamaterials, wireless communications, and electromagnetic simulations. Themos leads the innovation, research, and the team of scientists at MTI. He has worked toward pioneering commercially viable metamaterial technologies in solar, optical filters, and LED and technologies. He holds a Ph.D. in Electrical Engineering from the University of Southern California, and has over 10 years' experience in applied physics, engineering, and technical project management. Themos was the winner of the 2009 IEEE Doctoral Thesis Prize of the Nuclear and Plasma Sciences Society. He has filed 28 patent applications, and has authored over 50 publications in applied physics, electromagnetics and metamaterials.

## Abstract

As is the case with many early stage technologies, the commercialization of metamaterials requires significant resources in both money and collective human effort. In this work we investigate whether optical metamaterials in particular may require more than the typical resources to lead to successful commercialization. We also compare the estimated efforts with other technology commercialization projects of the recent past. The recent developments of MTI to develop optical laser filters for aircraft and aerospace applications using holography will also be presented. MTI has working with Airbus since 2014 to develop a custom laser filter for their aircraft.

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