中野久松名誉教授が新材料に関するフォーラム“Marina Forum on E Metamaterials 2021”において招待基調講演 Keynote Speech を行いました.

講演題目：円偏波メタマテリアルアンテナに関する最近の進展
Recent Progress in Circularly Polarized Metamaterial Antennas
日時：2021 年 3 月 4 日, 11:30 AM - 12:30 PM
開催場所：シンガポール
形態：オンライン

講演内容：
Circularly polarized (CP) antennas have been receiving considerable attention in response to recent developments in modern wireless communication systems. This keynote speech presents recent progress in four CP metamaterial antennas (metaantennas), comparing them with the corresponding natural CP antennas: (1) metaline antenna, (2) metaloop antenna, (3) metaspiral antenna, and (4) metacurl antenna. Investigation reveals that metaline antenna (1) exhibits a CP beam-scanning characteristic with change in frequency. Analysis of metaloop antenna (2) finds that it possesses a counter CP dual band characteristic, i.e., left-handed CP radiation across a specific frequency band and right-handed CP radiation across a different frequency band. Discussion of metaspiral antenna (3) is directed toward CP beam-scanning capability in both the azimuth and elevation planes. Exploration of metacurl antenna (4) finds that the antenna can be made to radiate a left-handed CP wave and a right-handed CP wave, where both have the same maximum gain.