Message from the Guest Editors

This special issue is dedicated to unite publications emphasizing the various aspects of numerical inversion in diverse remote sensing applications. The contributions are expected to address such important attributes of inversion as optimum accounting for errors in the data and inverting multi-source data with different levels of accuracy, utilizing a priori information and ancillary data, synergy retrievals using complimentary measurements or modeling considerations of different nature, inverse modeling and data assimilation, retrieval errors estimations, clarifying the potential of different mathematical inverse and other operations and methodologies, accelerating and optimizing performance of existing formal inverse operations, comprehensive validation of retrieval results, etc. The development of forward models for light propagation and radiation in a complex media are also welcome provided they open opportunities for establishing improved retrieval approaches.