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Preface

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Preface

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The fields of magnetohydrodynamics and plasma physics provide the nexus for a powerful array of multidisciplinary fields. Diverse fundamental and applied topics meet here, ranging from astrophysics, thermonuclear fusion, and earth sciences, through to bleeding-edge mathematical algorithm developments, including particle-in-cell, smoothed particle hydrodynamics, and adaptive mesh refinement approaches, each underpinned by rapid advances in high performance computing technology. The Second Workshop on Numerical Modeling in MHD and Plasma Physics (MHD2019), held 10-11 October 2019 at the Keldysh Institute of Applied Mathematics, in Moscow, brought together 40 leaders in their respective fields, under the guidance of a Program Committee spanning five countries. The overarching goal of the Workshop was the breaking down of artificial barriers which exist between disciplines, in order to share best practice in these diverse fields. By doing so, the associated up-skilling of all the participants could only benefit all those involved, as well as their respective staff and students; the timeliness of such a philosophy should not be underestimated, given the exponential growth in impact of Big Data across all of the disciplines represented at MHD2019. The success of MHD2019 is reflected in the breathtaking array of work highlighted in these proceedings, and bodes well for the continued success of the workshop series in the future.

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