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Foreword for the inaugural issue

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Editorial

Foreword for the inaugural issue

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Extreme manufacturing mainly refers to the manufacturing of devices/systems at extreme scales (extra large or small), of extremely high performance, or under extreme conditions/environments. The most common examples include manufacturing with extremely high energy density, at extremely small scales, of extremely complex macrosystems, with extremely high precision, and with nearly zero defects. It is an emerging frontier of manufacturing technologies requiring unconventional scientific discovery and engineering innovation, and will serve as the critical foundation for a new generation of science and technology to meet the critical needs of emerging industries. Extreme manufacturing is supported by multiple fields, including mechanics, materials, optics, physics, chemistry, mechanics, and mathematics. Hence, extreme manufacturing is being led by visionary, exploratory innovation which will form a foundation integrated with fundamental science and engineering technologies.

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to a wide range of audiences to promote the development of extreme manufacturing.

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