

IAF SPACE POWER SYMPOSIUM (C3)
Wireless Power Transmission Technologies and Application (2)

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TOWARD CONSISTENT BENCHMARKING FOR WIRELESS POWER TRANSMISSION

Abstract

Since the 1960s, numerous wireless power transmission and power beaming demonstrations have occurred. They have employed a range of modalities, and covered a wide span of power levels and distances. However, there has often been confusion in the literature concerning the reporting of these demonstrations, with frequent instances of omitted or ambiguous parameters. This paper endeavors to outline a consistent approach toward the characterization of wireless power transmission and power beaming links, regardless of modality. In principle, the methods described could be applied to a wireless power transmission or power beaming link regardless of its modality. Though only the simplest case of a single transmitter to a single receiver is examined in depth, this paradigm is extensible to a host of more complex scenarios with only minor additions. If researchers and system implementers adopt the approaches described herein, it is the author's belief that clarity in the reporting of and determination of the actual state-of-the-art for wireless power technology will be increased.