Multi-Scale Pulsed Power

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In the last two decades, pulsed power technology has undergone a transformation from its nuclear roots to widespread application as specialized power conditioning in many diverse technical areas. Along the way, the field expanded to incorporate a wide variety of auxiliary competencies, fueled by its inherent multidisciplinary nature. These include the physics of ionized gas phenomena, advanced computational techniques and high energy density physics and high power electromagnetics. In this historical context, I will describe the variety of endeavors with an emphasis on the parallel themes across the variety of voltage scales and emerging vistas.