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**Dynamic stall control by plasma actuators with combined energy/momentum action.** ANDREY STARIKOVSKIY, RICHARD MILES, Princeton University, PU TEAM — Increased interest in plasma assisted flow control is reflected by a dramatic increase in publication rate over the past decade, including numerous demonstrations of plasma-assisted flow control. Many of these have been summarized in several topical reviews published recently. As an alternative to AC voltage inputs, nanosecond pulse driven plasma actuators in which voltage is applied in pulses at a specific frequency and with a specific on-time have been proposed for separated flow control. Nanosecond pulsed periodic dielectric barrier devices have been experimentally demonstrated to affect separated flows over a range of Mach numbers ( $0.03 \leq M \leq 0.85$ ) and Reynolds numbers ( $10^4 \leq Re \leq 2 \times 10^6$ ) that are consistent with retreating blade flows. Furthermore, the nanosecond pulsed actuators tested to date have required less than 10 Watt per cm. of wing span, and therefore are energy efficient.

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