Plasma performance overview in DIII-D ELM suppressed RMP H-modes *

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Fast energy transients, incident on the DIII-D divertors due to Type-I ELMs, have been eliminated using small dc currents in a simple set of non-axisymmetric coils that produce edge Resonant Magnetic Perturbations (RMP). A summary of experimental measurements of the plasma response to n=3 RMPs over a wide range of DIII-D shapes and plasma parameters will be presented along with a discussion of open physics issues. The goal is to present an overview of the diversity of effects involved in high β RMP H-modes in order to provide plasma theorists and modelers with a better understanding of the unresolved physics issues involved in these experiments.

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