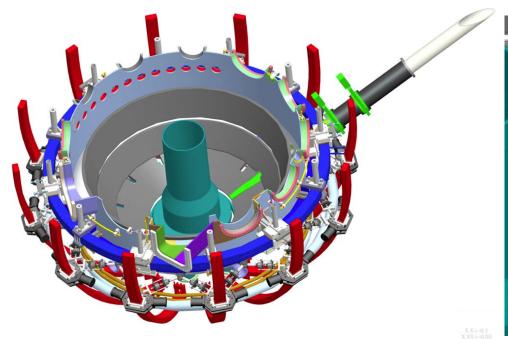
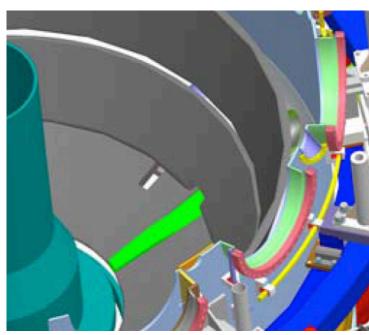
Replaceable Divertor Module for NSTX Upgrade

- S. Zweben, R.A. Ellis, R. Goldston, H. Ji, C. Skinner, P. Titus, A. Xing NSTX Facility Brainstorming Meeting Feb. 2012
- Small divertor segment replaced during run using bellows, for testing new PFCs, e.g. CPS or flowing liquid metal, or for new diagnostics, e.g. probes or surface samples





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Conceptual Design Has Been Completed

- Divertor segment would be 7.5 cm-15 cm wide and 60 cm in radial length, with toroidal coverage ~ 6°
- An new 8" hole would have to be cut into the outer vacuum vessel wall at Bay G and some coils moved (a minor job compared with other work already being done on vessel)
- Modules could be powered and instrumented, e.g. with lithium heater or pumps, probes, and thermocouples, (or left as a carbon tile when not in use for PFC tests)
- Vacuum interlock would allow new modules to be installed and removed relatively quickly, and old modules can be kept under vacuum for later analysis