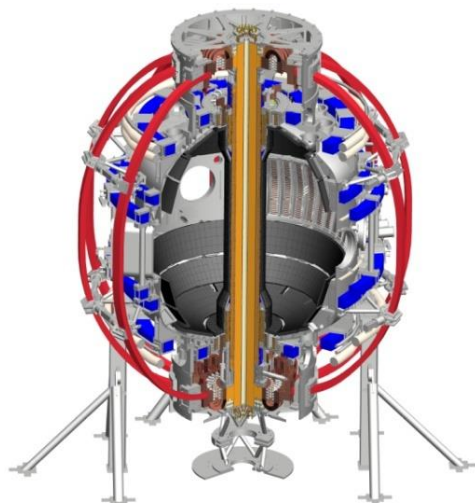


# High-Z reference discharge XMP

MA Jaworski

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# Goal: develop basic discharge scenario for high-Z reference discharge

- Need for XMP: most discharges run in NSTX-U will be high-delta and will not provide significant heat flux for PFC evaluation
- Tool development:
  - Develop shape+strike-point control for high-Z studies
  - Make H-mode target for later XPs to load and further develop
- Benefits: provides basic plasma target, could also aid in cryo-pump studies (similar strike-point locations)

*ISOLVER + 0D analysis*

*Bt = 0.78T*

*I<sub>p</sub> = 1.25MA*

*Beta<sub>N</sub> = 4.5*

*q<sub>95</sub> = 6.8*

*Elong. = 2.37*

*Lower triang. = 0.53*

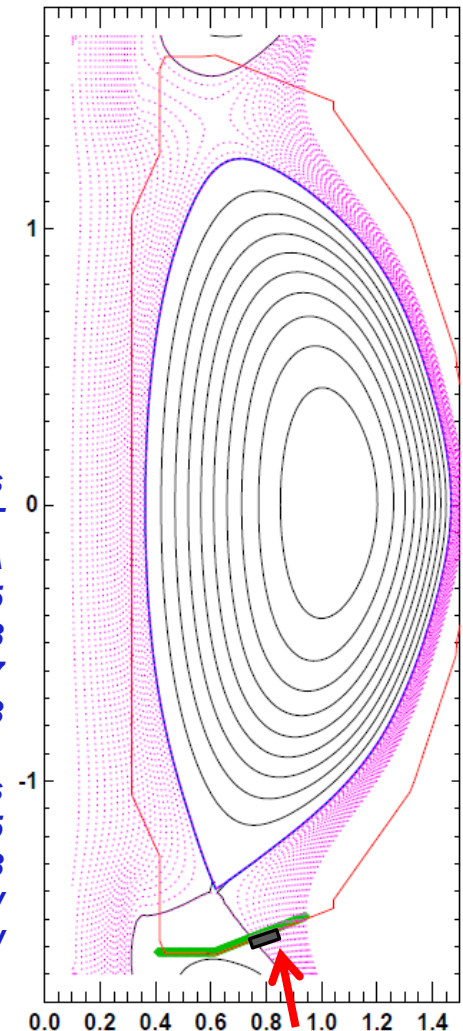
*tau<sub>E</sub> = 0.049s*

*f<sub>GW</sub> = 0.75*

*N<sub>20</sub> = 0.98*

*T<sub>e</sub>=T<sub>i</sub> = 1.05keV*

*P<sub>inj</sub> = 9.8MW*



**Row 2**