# Fuelling Issues - NSTX

## Baseline Fuelling System

- What is base plasma range of density and temperature anticipated for NSTX ?

- What extensions of the base plasma density range are considered likely ?

- Particle confinement - Recycling level - Fuelling efficiency

- What flexibility in fuelling system is desired
  - range of gas flow magnitude
  - number of gases
  - feedback control of gas flow
  - time response
  - geometry of flow path (outside midplane - x-point or flux expansion region or small major radius)

## Auxiliary Fuelling Systems

- NBI fuelling capability

- What other fuelling systems are desirable

- If Pellets - Purpose: Densify and/or Sustain Discharge
  - Launch geometry (Inside and/or Outside launch)
  - Pellet perturbation/penetration
  - Pellet size and speed - Pellet Isotope flexibility

- If CT - Purpose: CT Deposition test and/or fuelling system

  - Perturbation size of each CT
  - repetition rate
  - CT pressure and physicial size