SNAKE simulation Tuning to Match Data

Min Huang

02/08/2013

- Center angle defined as center hole angle
- Coordinates based on this

- 1. Changed spectrometer position to reflect the offset in survey

The central ray of the spectrometer is at -12.495 degrees.
It is missing the defined target center by 2.09 mm upstream, and -0.16 mm vertically (positive = up).

The central ray of the spectrometer is at -12.498 degrees.
It is missing the defined target center by 1.83 mm upstream, and -0.40 mm vertically (positive = up).

- 2. Moved target position from target center to Carbon foil position
- Could not do this directly in Snake
- Calculated center hole angle from Carbon foil, and distance to other component (eg. septum...)
- New coordinate

Current Result

	X(mm)	Theta(mrad)	Y(mm)	Phi(mrad)
data	2.52	0.49	-16.19	-8.47
SNAKE	7.99	0.67	7.94	-8.51

- Theta & Phi match well
- Don't want to tune septum & dipole field any more
- Trying to tune Quads to get x & y matchy