Select apatite for analysis:

Step 1. Select grain geometry and GEM category
- Hexagonal
- Ellipsoid

Step 2. Measure the grain's length and maximum width

Step 3. Calculate the 2D values

Step 4. Correct the 2D $V$, isotope-specific $F_T$, and $R_{FT}$ values according to grain geometry

Example:

$$V_{GCM} = V_{2D} \times \text{correction}$$

Step 5. Assign uncertainties to $V_{GCM}$, isotope-specific $F_{T,GCM}$, and $R_{FT,GCM}$ according to grain geometry (all parameters) and maximum width ($F_{T,GCM}$)

Example:

$$V_{GCM} \pm 1\sigma \text{ uncertainty } \%$$

Step 6. Calculate derived parameters (mass, eU, corrected AHe date) and propagate uncertainties