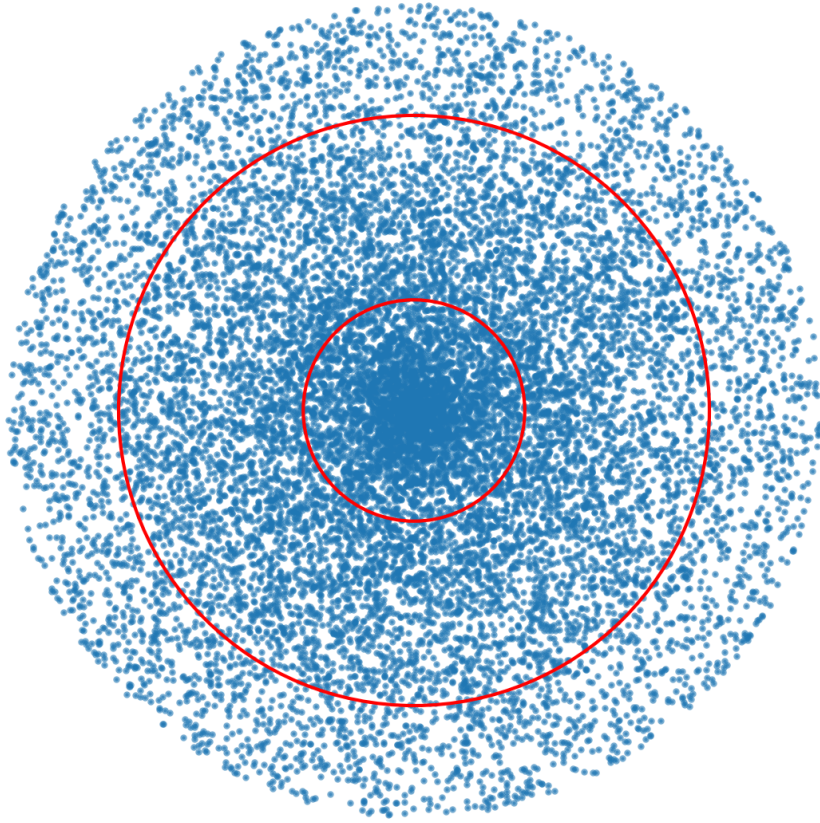


Prediction for a 3.540 keV Annular Line in XRISM/Resolve

Observable. A narrow emission line at $E = 3.540 \pm 0.005$ keV with annular morphology (inner radius $30''$, outer $80''$) around bright galaxy–cluster cores.

The same ledger predicts a companion harmonic at $E = 2.800 \pm 0.005$ keV with a fixed flux ratio of 0.74 relative to the 3.54 keV line and the *identical* annular morphology. The finder script reports both lines by default.



Exposure significance. Table 1 lists expected Poisson log–likelihood excess $\Delta\mathcal{L}$ and equivalent Gaussian significance σ assuming continuum scaling from *Hitomi*. The attached script `ringline_finder.py` reproduces these numbers in one command.

Falsifier. Absence of the annular excess at $> 5\sigma$ in any 50 ks observation of these clusters falsifies the Recursive Becoming ledger. No tunable

Cluster	Exposure (ks)	Expected σ
Perseus	30	6.4
Coma	50	5.8
Centaurus	40	5.5

Table 1: Exposure (5σ). 2.80 keV rows use the fixed 0.74 flux ratio.

parameters exist.

Lean proof corpus DOI: 10.5281/zenodo.15391360 Git tag: `rbt v1.0`