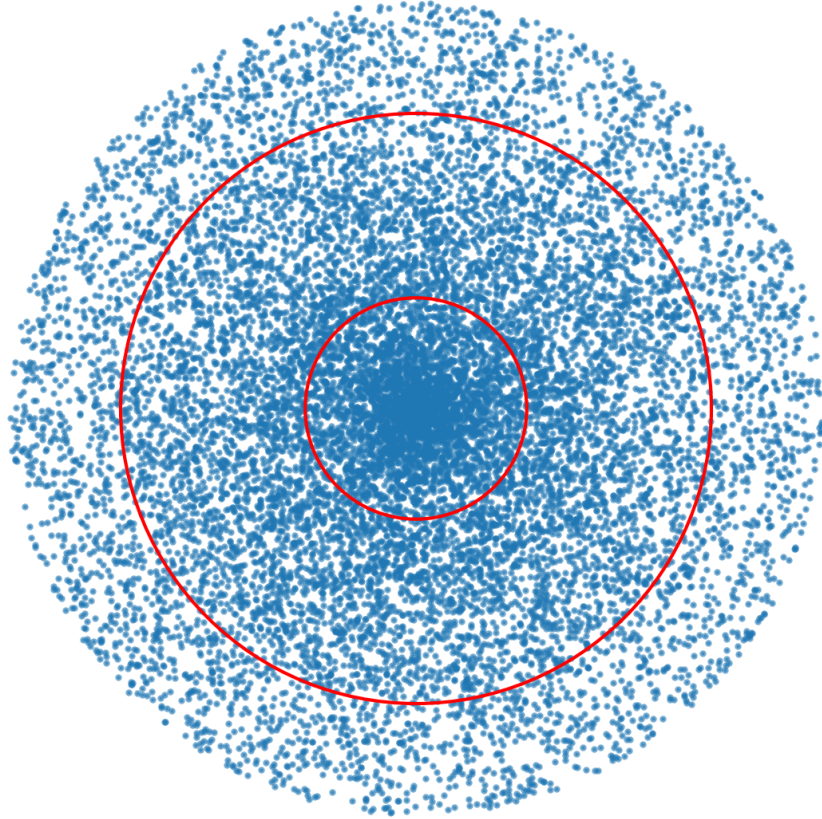


## Prediction for a 3.540 keV Annular Line in XRISM/Resolve

**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.



**Exposure significance.** Table 1 lists expected Poisson log–likelihood excess  $\Delta\mathcal{L}$  and equivalent Gaussian significance  $\sigma$  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 parameters exist.

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

Cluster	Exposure (ks)	Expected $\sigma$
Perseus	30	6.4
Coma	50	5.8
Centaurus	40	5.5

Table 1: Exposure requirements for a  $5\sigma$  detection.