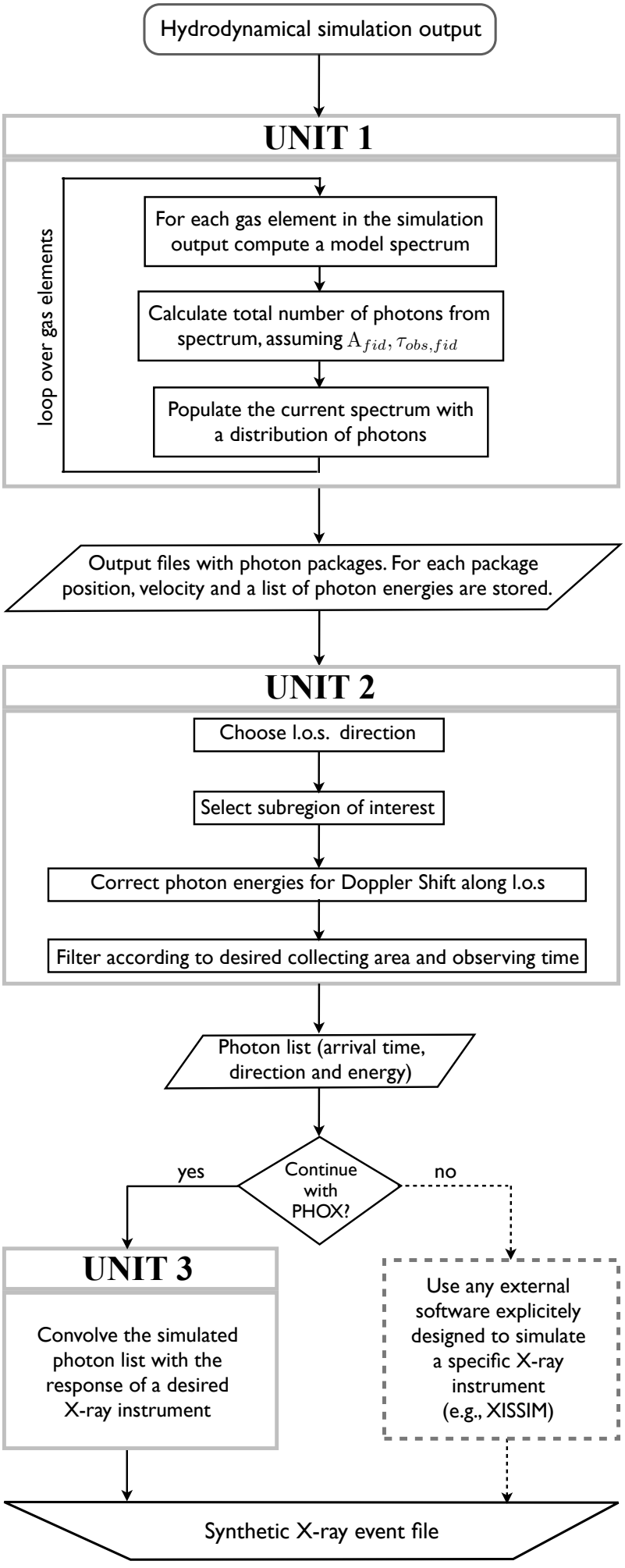
Hydrodynamical simulation output
UNIT 1
loop over gas elements
For each gas element in the simulation output compute a model spectrum
Calculate total number of photons from spectrum, assuming $A_{fid}, \tau_{obs,fid}$
Populate the current spectrum with a distribution of photons
Output files with photon packages. For each package position, velocity and a list of photon energies are stored.
UNIT 2
Choose l.o.s. direction
Select subregion of interest
Correct photon energies for Doppler Shift along l.o.s
Filter according to desired collecting area and observing time
Photon list (arrival time, direction and energy)
Continue with PHOX?
yes
no
UNIT 3
Convolve the simulated photon list with the response of a desired X-ray instrument
Use any external software explicitely designed to simulate a specific X-ray instrument (e.g., XISSIM)
Synthetic X-ray event file