



(a) **ASTRA Toolbox** - using `astra.algorithm`

**CPU data**  
NumPy arrays

**astra.  
algorithm**

**Projector**

**CUDA  
kernel**



(b) **Tomosipo** - using GPULink and `directFBP`

**GPU data**  
e.g. PyTorch or  
CuPy arrays

**Algorithm**  
e.g. user code  
or `ts_algorithms`

**astra.  
directFBP**

**CUDA  
kernel**



(c) **ASTRA KernelKit**

**GPU data**  
e.g. PyTorch or  
CuPy arrays

**Algorithm**  
e.g. user code

**kernelkit.  
Projector**

**CUDA  
kernel**



Python/CuPy

C++/CUDA

C++/CUDA (runtime-compiled)