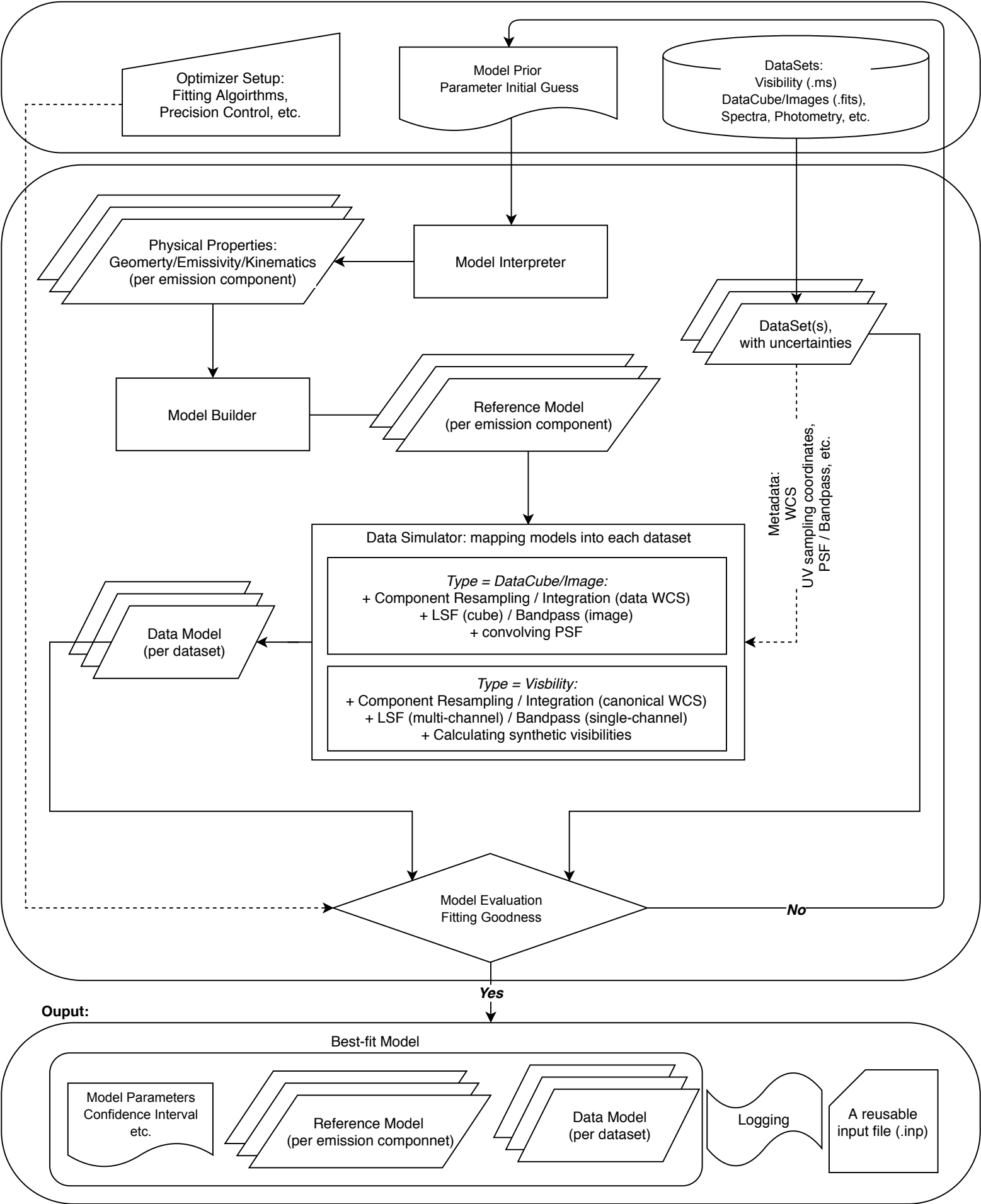# GMaKE 0.1.dev3: *Galaxy Morphology and Kinematics Estimator*

Input: optimizer setup, model prior, configuration, and dataset paths, specified in a input file (.inp)

Optimizer Setup:
Fitting Algoirthms,
Precision Control, etc.

Model Prior
Parameter Initial Guess

DataSets:
Visibility (.ms)
DataCube/Images (.fits),
Spectra, Photometry, etc.

Physical Properties:
Geomerty/Emissivity/Kinematics
(per emission component)

Model Interpreter

DataSet(s),
with uncertainties

Model Builder

Reference Model
(per emission component)

Metadata:
WCS
UV sampling coordinates,
PSF / Bandpass, etc.

Data Simulator: mapping models into each dataset

Type = DataCube/Image:
+ Component Resampling / Integration (data WCS)
+ LSF (cube) / Bandpass (image)
+ convolving PSF

Type = Visbility:
+ Component Resampling / Integration (canonical WCS)
+ LSF (multi-channel) / Bandpass (single-channel)
+ Calculating synthetic visibilities

Data Model
(per dataset)

Model Evaluation
Fitting Goodness

No

Yes

Ouput:

Best-fit Model

Model Parameters
Confidence Interval
etc.

Reference Model
(per emission componnet)

Data Model
(per dataset)

Logging

A reusable
input file (.inp)

Note:
1. get rid of spectra/photometry related wording
2. tthumbnails for some boxes.