

# GalPak3D models

- Implementation 1.8.9
- Implementation 1.9.0
  - New model class “model=DiskModel()”
- Implementation plan 2.0beta
  - New Sersic 3D model (new defaults)
  - New Sersic 2D model
- Implementation plan 2.1beta

- Implementations

- Was: gpk<=1.8.9



**Exponential**  
Gaussian  
DeVaucouleurs  
SersicN2

**Arctan**  
Isothermal  
Exponential  
Tanh, mass

- Gpk2: gpk=1.9.0 DiskModel()



**Exponential**  
Gaussian  
DeVaucouleurs  
SersicN2

**Arctan**  
Isothermal  
Exponential  
Tanh, mass

- Implementations Gpk2.0beta

- [OII] free ratio
- DiskSersicModel()



Exponential  
Gaussian  
DeVaucouleurs  
SersicN2  
Sersic Free

Arctan  
Isothermal  
Exponential  
**Tanh**, *mass*

- Sersic2D()



**Sersic Free**  
Sersic=0.5, 1.0, 2.0, 4.0

- DiskBulge2D()

Exponential  
+  
Bulge (**SersicN2**, N4,  
Sersic free)

- DiskBulgeModel()

Exponential  
+  
Bulge (**SersicN2**, N4,  
Sersic free)

Arctan  
Isothermal  
Exponential  
**Tanh**, *mass*

- Implementation plan v2.1beta

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- 2.1: DiskHaloModel(redshift)



Exponential  
Gaussian  
DeVaucouleurs  
SersicN2  
Sersic free

Isothermal  
Burkert  
NFW (+c tied)  
**tbd : DC14**

- 2.1: DiskBulgeModel(redshift)

Exponential  
+  
Bulge (SersicN2, N4,  
Sersic free)

Arctan  
Isothermal  
Exponential  
Tanh

- Implementation plan

- GpK2.1: DiskBulgeCombo()

– Exponential  
+  
– Bulge( n=2 / n=4 )

Mass(Exp) + Hernquist(Bulge)  
+ Plummer(Bulge)  
DM: + isothermal  
+ Burkert

- Gpk2: DiskBurkertCombo()

– Exponential

Mass(Exp) + Burkert

- GpK2: DiskDC14Combo(redshift)

– Exponential

Mass(Exp) + Di14

- Gpk2: DiskHaloCombo()

Exponential  
(+ Bulge)

Mass(D)+B/D+ Isothermal  
Mass(D)+B/D+ Burkert  
Mass(D)+B/D+ NFW  
Mass(D)+B/D+ DC14

