Check List for Particle : $\boldsymbol{a_2^0(1320)}$

March 25, 2009

Quantity	Us	PDG	EvtGen	Quantity	Us	PDG	EvtGen
PDG Code	115			Mass	1318.3		
Width	107			Gen Name	a_20		
Decay Length	0 m.						

Latex Name	$a_2^0(1320)$	Mass Gen.	`a_20mass`	Width Gen.	`a_20width`	Type	meson
Type	normal	Con. Mass	0	Rating	$*****$	Variable Ratio	fixed
Stable	unstable	Spin	2	Charge	0	Colour	0
Lower Cut	214	Upper cut	214	PDG link	m012		

- Is the description present and correct?

  The $a_2^0(1320)$ is the neutral member of the isospin triplet from the lightest tensor multiplet. The mass and width are taken from [?]. The limit on the off-shellness of the particle is set to twice the width. The decay modes are similar to those in EvtGen apart from the modelling of $\omega\pi\pi$ as $\omega\rho$, the inclusion of the $\eta'\pi$ and $\gamma\gamma$ modes the omission of the $\pi\gamma$ mode.

- References?

Branching Ratio	Rating	Outgoing Particles	Description	Decayer	EvtGen
0.349434	$*****$	ρ^+, π^-		Herwig::TensorMesonVectorPScalar::TensorVP	
0.349434	$*****$	ρ^-, π^+		Herwig::TensorMesonVectorPScalar::TensorVP	
0.144053	$*****$	π^0, η		Herwig::TensorMeson2PScalar::Tensor2PScalar	
0.103473	$****$	ω, ρ^0		Herwig::TensorMesonVectorVector::TVV	
0.024184	$*****$	K^+, K^-		Herwig::TensorMeson2PScalar::Tensor2PScalar	
0.024184	$*****$	K^0, K^0		Herwig::TensorMeson2PScalar::Tensor2PScalar	
0.005229	$****$	η', π^0		Herwig::TensorMeson2PScalar::Tensor2PScalar	
0.000009	$****$	γ, γ		Herwig::TensorMesonVectorVector::TVV	

Table 1: The decay modes of the $a_2^0(1320)$.

Total branching ratio is 1.