Likelihood Scan in terms of the KHvv and Kavv couplings using a SM Asimov data set and fitted to the observed data

Using
(1) different variables in building discriminants
(2) different binning

Default BDT discriminants

Category	Discriminant
0jet	BDT_discriminant
1jet_highpt4l, 1jet_mediumpt4l, 1jet_lowpt4l	BDT_OneJet_jptetadR_discriminant
2jet_VBF_lowptjet, 2jet_VBF_highptjet	BDT_TwoJet_discriminant
2jet_VH_lowpt4l, 2jet_VH_highpt4l	BDT_VH_noptHjj_discriminant
ttH	M4l_constrained_HM
VHlep	M4l_constrained_HM

Likelihood Scan for One Bin

Likelihood Scan for Two Bin

Likelihood Scan for Three Bin

Customize BDT discriminants (1)

Category	Discriminant
0jet	mZ2_unconstrained
1jet_highpt4l, 1jet_mediumpt4l, 1jet_lowpt4l	Jet_eta[0]
2jet_VBF_lowptjet, 2jet_VBF_highptjet	dijet_deltaeta
2jet_VH_lowpt4l, 2jet_VH_highpt4l	Dijet_deltaphi
ttH	pt4l_fsr
VHlep	pt4l_fsr

Likelihood Scan for One Bin

Likelihood Scan for Two Bin

Likelihood Scan for Three Bin

Customize BDT discriminants (2)

Category	Discriminant
0jet	mZ2_unconstrained
1jet_highpt4l, 1jet_mediumpt4l, 1jet_lowpt4l	mZ2_unconstrained
2jet_VBF_lowptjet, 2jet_VBF_highptjet	mZ2_unconstrained
2jet_VH_lowpt4l, 2jet_VH_highpt4l	mZ2_unconstrained
ttH	mZ2_unconstrained
VHlep	mZ2_unconstrained

Likelihood Scan for One Bin

Likelihood Scan for Two Bin

Likelihood Scan for Three Bin

Customize BDT discriminants (3)

Category	Discriminant
0jet	pt4l_fsr
1jet_highpt4l, 1jet_mediumpt4l, 1jet_lowpt4l	pt4l_fsr
2jet_VBF_lowptjet, 2jet_VBF_highptjet	pt4l_fsr
2jet_VH_lowpt4l, 2jet_VH_highpt4l	pt4l_fsr
ttH	pt4l_fsr
VHlep	pt4l_fsr

Likelihood Scan for One Bin

Likelihood Scan for Two Bin

Likelihood Scan for Three Bin