Correlation matrix of nuisance parameters. Values are in percent (%); the diagonal is 100.0.

	μ	ABCD electron	ABCD muon	FFNP_SS_CR	FFNP_OS_CR	JER_1	JER_2	JER_4	JES_Modelling1	JET_EtaInt_Modelling	JET_Flavor_Composition	JET_Flavor_Response	JET_Pileup_OffsetMu	JET_Pileup_OffsetNPV	JET_Pileup_RhoTopology	LumiUncertainty	PRW	TES_DETECTOR	TAU_PLIV	btag_B_0	btag_B_1	btag_B_3	btag_B_37	btag_C_0	btag_C_5	btag_C_8	fakeSF_1p_pt2_b_fake	ttH theory_uncer	tauTrigger_STATDATA161718	tauTrigger_STATDATA2018	tauTrigger_STATMC161718	tauTrigger_STATMC2018	tauTrigger_SYST161718	tauTrigger_SYST2018	tauTrigger_SYSTMU161718	tauTrigger_SYSTMU2018	only τ_sub real modelling	tt FSR	tt ISR	tt PDF	tt PS	tt hdamp	tt scale	wjet theory_uncer	ztt ckk
μ	100.0	4.7	1.6	7.5	12.2	-4.6	-0.6	7.6	-3.0	1.4	-4.0	2.5	0.4	-1.0	-0.1	-8.8	3.8	-10.7	2.1	-2.0	0.9	6.5	-3.9	1.4	7.7	-8.6	-4.1	-10.7	1.7	3.1	3.1	3.1	3.1	3.1	-1.1	3.1	-1.0	3.8	0.6	-3.5	-3.2	1.1	-13.3	1.1	-0.2
ABCD electron	4.7	100.0	-55.8	-1.1	-2.0	2.8	-9.6	5.3	0.1	2.8	13.2	-1.1	-1.4	4.5	0.1	-11.6	-1.2	-7.1	-14.4	15.2	11.1	1.3	1.1	3.8	3.3	-3.2	-1.0	0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.3	0.4	11.6	4.0	-8.1	-6.4	-6.7	-1.2	-19.9	0.3
ABCD muon	1.6	-55.8	100.0	-0.4	-0.7	1.0	-3.3	1.8	0.0	1.0	4.6	-0.4	-0.5	0.1	0.0	-4.0	-2.5	-5.0	5.3	3.8	0.3	0.5	1.1	1.3	1.1	-1.1	-0.3	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.2	4.0	1.4	-2.8	-2.2	-2.3	-0.4	-6.9	0.1
FFNP_SS_CR	7.5	-1.1	-0.4	100.0	-26.8	2.2	0.5	-0.6	0.4	-1.8	1.2	-1.1	1.1	0.8	3.2	-2.0	7.9	4.8	-1.3	-2.8	-0.1	0.6	-0.4	2.4	-2.6	0.1	4.1	6.3	6.3	6.3	6.3	6.3	6.3	7.9	6.3	10.2	-1.9	-0.2	6.5	-10.6	-0.6	3.7		
FFNP_OS_CR	12.2	-2.0	-0.7	-26.8	100.0	4.4	-1.0	-1.7	0.2	-2.7	1.5	1.7	2.9	2.1	4.2	-4.4	8.5	13.1	-2.4	-3.5	-0.5	3.0	-3.3	-2.0	9.0	5.6	6.2	5.2	5.2	6.2	11.0	-11.5	-2.7	-1.5	6.2	-9.6	-1.2	-1.5	6.2						
JER_1	-4.6	2.8	1.0	2.2	4.4	100.0	-9.3	12.8	-0.1	6.0	1.1	-0.7	0.2	-0.3	3.2	3.2	-0.9	5.0	3.4	-0.6	1.5	1.4	-0.0	3.0	-2.1	2.3	-3.1	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.6	-0.3	1.6	-1.2	3.4	2.6	-3.3	-1.4	-2.1	2.8	-1.0	
JER_2	-0.6	-9.6	-3.3	0.5	-1.0	-9.3	100.0	8.2	-2.6	0.1	0.4	4.3	0.1	-0.3	-15.4	1.6	3.1	5.7	0.5	4.8	3.3	3.5	-1.9	-2.8	-0.0	-0.2	0.3	-1.4	-1.2	-1.2	-1.2	-1.3	-1.2	4.2	2.8	4.0	2.0	-0.4	-2.4	-3.9	-0.4	1.8			
JER_4	7.6	5.3	1.8	-0.6	-1.7	12.8	8.2	100.0	-2.4	-2.8	2.7	0.5	0.1	-0.3	4.6	-2.7	1.8	-0.8	-2.6	-3.6	-3.0	0.6	-0.4	2.3	-1.8	-1.1	-1.1	-1.1	-1.1	-1.3	-3.1	-1.1	-1.8	0.6	-1.0	-1.6	0.5	-10.8	-3.6	4.1					
JES_Modelling1	-3.0	0.1	0.0	0.4	0.2	-0.1	-2.6	0.2	100.0	-13.1	-4.3	19.2	-3.8	-3.4	-5.9	0.4	2.3	0.2	0.4	-0.8	1.0	2.2	-0.8	-3.9	0.2	-3.0	2.0	-0.7	-1.6	0.5	-10.8	-3.6	1.5	1.2											
JET_EtaInt_Modelling	1.4	2.8	1.0	-1.8	-2.7	6.0	0.1	-2.8	-13.1	100.0	2.4	20.8	3.4	-9.8	-2.1	0.5	1.5	-3.9	-0.9	3.6	-0.0	0.8	-1.5	3.0	-2.8	-6.6	-0.4	-1.5	3.0	2.8	-6.6	0.4	11.3	0.1	3.3	2.6	1.5								
JET_Flavor_Composition	-4.0	13.2	4.6	1.2	1.5	1.1	0.4	2.7	-4.3	2.4	100.0	0.1	5.7	1.6	-28.2	3.3	-7.4	-2.5	9.4	-12.4	0.1	-0.1	-0.1	-0.1	9.5	-10.9	2.2	-0.7	0.9	-0.0	0.1	-1.5	-9.7	-17.5	-1.9	-26.2	17.5	3.0	-3.1						
JET_Flavor_Response	2.5	-1.1	-0.4	-1.1	1.7	-0.7	4.3	0.5	19.2	20.8	0.1	100.0	3.9	13.2	2.4	0.4	1.4	5.4	-1.0	-1.2	1.7	1.1	-1.6	-1.1	4.3	4.3	4.3	4.3	4.3	7.4	4.3	4.9	-0.0	20.2	2.5	-0.7	4.2								
JET_Pileup_OffsetMu	0.4	-1.4	-0.5	1.1	2.9	0.2	0.1	0.1	-3.8	3.4	5.7	3.9	100.0	-5.1	-7.5	2.9	-7.0	-0.8	-2.8	-1.8	-0.0	-2.0	-1.6	-0.2	0.8	0.7	0.7	0.6	0.7	-3.3	-10.1	-0.6	-2.2	-1.9	-6.5	0.0	-0.8								
JET_Pileup_OffsetNPV	-1.0	4.5	0.1	0.8	2.1	-0.3	-0.3	-0.3	-3.4	-9.8	1.6	13.2	-5.1	100.0	-3.9	-1.3	3.5	-3.6	14.0	9.6	1.0	-0.0	0.1	-1.2	1.1	-0.6	0.1	-1.0	-1.2	-7.0	-3.2	0.3	-18.3	-3.7	-0.9	0.7	0.4								
JET_Pileup_RhoTopology	-0.1	0.1	0.0	3.2	4.2	3.2	-15.4	4.6	-5.9	-2.1	-28.2	2.4	-7.5	-3.9	100.0	9.8	6.5	6.9	14.0	33.6	14.9	14.3	0.4	0.0	3.4	4.0	2.0	-1.9	-1.2	-1.2	-1.2	-1.2	-4.0	-1.2	-6.7	-28.6	-0.1	10.0	-10.4	-1.5	8.9	-7.7	3.3		
LumiUncertainty	-8.8	-11.6	-4.0	-2.0	-4.4	3.2	1.6	-2.7	0.4	0.5	3.3	0.4	2.9	-1.3	9.8	100.0	5.3	-5.3	-19.7	-7.2	-2.8	-5.8	-2.9	-0.1	-1.4	-3.2	-2.8	-2.8	-4.6	-2.8	-4.6	10.9	10.9	-10.4	10.4	-10.6	3.2								
PRW	3.8	-1.2	-2.5	7.9	8.5	-0.9	3.1	1.8	2.3	1.5	-7.4	1.4	-7.0	3.5	6.5	5.3	100.0	1.7	12.2	-1.8	0.4	0.2	11.8	-1.1	1.0	-1.3	-0.6	-0.3	-0.1	-14.6	11.8	-3.1	-1.1	-8.7	-17.0	19.4									
TES_DETECTOR	-10.7	-7.1	-5.0	4.8	13.1	5.0	5.7	-0.8	0.2	-6.1	-2.5	5.4	-0.8	-3.6	6.9	-5.3	1.7	100.0	-7.4	9.6	3.3	10.0	-7.7	-3.4	-4.3	0.4	-1.3	4.8	4.8	5.6	4.8	1.8	-3.5	-6.9	2.8	1.8	4.4								
TAU_PLIV	2.1	-14.4	-5.0	-1.3	-2.4	3.4	0.5	-2.6	0.4	2.1	9.4	-1.0	-2.8	14.0	6.9	-19.7	12.2	-7.4	100.0	-7.5	-3.6	-0.2	1.0	-2.1	-4.3	5.3	-0.9	-0.7	-0.5	-0.5	-0.5	-0.5	-0.5	1.9	11.7	-3.8	0.7	-12.5	6.6	-8.3	-2.3	1.0			
btag_B_0	-2.0	15.2	5.3	-2.8	-3.5	-0.6	4.8	-3.6	-0.3	-1.4	-12.4	-1.2	-1.8	9.6	33.6	-7.2	-1.8	9.6	-7.5	100.0	-12.2	0.4	-0.2	-0.9	-0.1	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.9	9.0	17.8	3.6	-22.1	2.9	3.6	4.3						
btag_B_1	0.9	11.1	3.8	-0.1	-0.3	1.5	3.3	-3.0	1.0	-0.0	0.1	1.7	-0.0	1.0	14.9	-2.8	0.4	3.3	-3.6	-12.2	100.0	1.6	-0.6	-0.7	1.0	-0.0	-0.7	-0.4	-0.4	-0.4	-0.4	-1.3	-0.4	5.2	1.3	0.3	-5.4	3.8	0.5	0.4					
btag_B_3	6.5	1.3	0.5	0.6	0.5	1.4	3.5	-1.2	2.2	0.8	1.0	-2.5	1.5	2.1	14.3	7.7	-14.6	-0.2	10.0	-3.9	-1.6	100.0	11.1	1.8	1.2	2.5	-0.2	-1.5	-1.1	-1.1	-1.1	-1.1	-2.7	-1.1	-2.1	-2.9	4.4	-6.3	-0.7	-10.7	-1.6	-0.3			
btag_B_37	-3.9	1.1	0.4	-0.4	-0.4	-0.0	-1.9	-0.3	-3.6	-1.5	-0.9	-1.6	-1.6	0.1	0.4	-8.8	11.8	-7.7	1.0	-0.2	-0.6	11.1	100.0	0.6	-1.4	1.7	0.6	0.2	12.9	0.9	0.9	0.9	0.9	-4.5	-3.5	5.7	5.3	9.9	4.6	0.4					
btag_C_0	1.4	3.8	1.3	2.4	3.0	2.8	-3.0	0.2	-3.9	-2.5	-0.1	-1.1	-2.0	-1.2	3.4	-2.9	-1.1	-3.4	-2.1	-0.9	-0.7	1.8	0.6	100.0	0.6	-0.7	-1.3	0.0	0.7	-4.5	-7.7	-0.7	0.0	2.2	-3.0	3.5	-0.5								
btag_C_5	7.7	3.3	1.1	2.4	3.0	-2.1	-0.0	-0.4	-0.8	-0.9	9.5	4.3	0.8	1.1	1.8	-1.4	1.0	-4.3	-4.3	-0.8	1.0	1.2	-1.4	0.6	100.0	1.4	2.6	0.2	-0.0	-0.4	-1.4	-0.4	-4.4	1.2	2.2	-10.4	2.4	-0.2							
btag_C_8	-8.6	-3.2	-1.1	-2.6	-3.3	2.3	-0.2	-0.8	-0.9	-10.9	2.0	-2.6	0.8	5.3	-4.3	1.1	-1.3	0.6	5.3	0.0	1.7	1.4	100.0	-2.1	-0.3	0.2	-0.5	-0.1	-1.6	-1.6	11.2	-3.3	0.0	1.0											
fakeSF_1p_pt2_b_fake	-4.1	-1.0	-0.3	0.1	2.3	2.0	3.6	4.2	2.2	3.6	2.2	-5.6	-1.6	-0.5	-6.3	-0.9	-5.4	-0.5	-6.3	-0.9	-0.5	-0.5	-0.5	-0.5	-1.4	100.0	0.6	-1.3	2.0	-0.6	-1.3	2.0	-9.3	0.4	-1.5	-6.2	-5.7	-10.9	-0.7						
ttH theory_uncer	-10.7	0.2	0.1	0.4	0.8	-0.3	-1.4	-1.8	-1.6	-1.0	-0.7	0.4	-0.1	0.1	0.0	-3.2	-4.5	5.3	-2.7	-0.6	0.7	-0.4	0.0	-0.1	0.0	0.6	100.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.1	-0.3	0.3	0.8	-0.6	0.2	-0.3						
tauTrigger_STATDATA161718	1.7	-0.3	-0.1	6.1	5.6	-0.1	-1.4	-1.8	-1.6	-1.4	0.4	-1.2	-1.1	-1.4	-1.4	-4.5	5.3	-2.7	-0.7	-0.6	0.7	-0.6	-0.4	0.0	100.0	-5.6	-5.6	-5.6	-5.6	-13.0	-5.6	-4.3	0.8	1.1	-1.6	0.0	4.4	-0.9	-0.1	7.2					
tauTrigger_STATDATA2018	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.1	-1.4	-1.4	-0.0	4.3	0.7	-1.1	-1.2	-2.8	-4.0	4.8	-0.5	-0.8	-0.7	1.6	-0.7	-0.1	-5.6	100.0	-4.5	-4.5	-4.5	-10.7	-4.5	-4.5	-0.7	1.6	-0.4	4.4	-0.8	-0.2	5.6						
tauTrigger_STATMC161718	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.1	-1.4	-1.4	-0.0	4.3	0.7	-1.1	-1.2	-2.8	-4.0	4.8	-0.5	-0.8	-0.7	1.6	-0.7	-0.1	-5.6	-4.5	100.0	-4.5	-4.5	-10.7	-4.5	-4.5	-0.7	1.6	-0.4	4.4	-0.8	-0.2	5.6						
tauTrigger_STATMC2018	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.1	-1.4	-1.4	-0.0	4.3	0.7	-1.1	-1.2	-2.8	-4.0	4.8	-0.5	-0.8	-0.7	1.6	-0.7	-0.1	-5.6	-4.5	-4.5	100.0	-4.5	-10.7	-4.5	-4.5	-0.7	1.6	-0.4	4.4	-0.8	-0.2	5.6						
tauTrigger_SYST161718	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.1	-1.4	-1.4	-0.0	4.3	0.7	-1.1	-1.2	-2.8	-4.0	4.8	-0.5	-0.8	-0.7	1.6	-0.7	-0.1	-5.6	-4.5	-4.5	-4.5	100.0	-10.7	-4.5	-4.5	-0.7	1.6	-0.4	4.4	-0.8	-0.2	5.6						
tauTrigger_SYST2018	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.3	-1.4	-1.5	-0.8	7.4	0.7	-1.3	-1.2	-4.6	-8.7	5.6	-0.5	-0.8	-0.4	-2.1	12.9	0.7	-13.0	-10.7	-10.7	-10.7	-10.7	100.0	-10.7	-8.2	2.3	-2.1	-0.1	7.4	-1.0	-0.0	11.2						
tauTrigger_SYSTMU161718	-1.1	-0.4	-0.1	7.9	5.2	-0.6	4.2	-3.1	0.5	-1.5	0.9	4.3	-3.3	-0.1	-4.0	-4.6	-8.7	5.6	-1.7	-3.2	-1.3	-2.7	-2.9	-0.5	-5.6	-4.5	-4.5	-4.5	-4.5	-10.7	100.0	-10.7	-8.2	2.3	-2.1	-0.1	7.4	-1.0	-0.0	11.2						
tauTrigger_SYSTMU2018	3.1	-0.3	-0.1	6.3	6.2	-1.2	-1.2	-1.4	-1.4	-1.4	-2.8	4.0	-2.8	-4.0	-1.2	-2.8	-4.0	4.8	-0.5	-0.8	-0.7	1.6	-0.7	-0.1	-5.6	-4.5	-4.5	-4.5	-4.5	-10.7	-10.7	100.0	-0.7	1.6	-0.4	4.4	-0.8	-0.2	5.6						
only τ_sub real modelling	-1.0	0.4	0.2	10.2	11.0	1.8	1.8	0.8	0.6	3.0	1.4	4.0	-3.3	-1.2	-6.7	0.9	-5.0	-4.1	1.9	2.9	-0.9	-2.1	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3	-8.2	-4.3	-4.3	100.0	-2.0	4.1	-1.7	22.5	26.4	-1.7	0.8	-0.6				
tt FSR	3.8	11.6	4.0	-6.7	-11.5	-1.2	2.8	-0.5	-10.8	-11.3	-15.7	1.5	-10.1	-7.0	-28.6	10.9	3.3	3.3	11.7	17.8	5.2	-2.9	4.9	-4.5	-8.8	9.0	-9.3	1.0	-0.9	-0.9	-0.9	-0.9	-0.9	-0.3	-0.9	-2.0	100.0	-3.8	18.7	1.3	-7.7	6.7	2.4		
tt ISR	0.6	4.0	1.4	-1.9	-2.7	3.4	4.0	-3.6	-1.8	-6.6	-9.7	4.9	0.6	-3.2	-0.1	-3.9	-1.1	-3.5	-3.8	3.6	1.3	4.4	-3.7	0.6	-0.4	0.4	-0.1	1.1	0.7	0.7	0.7	0.7	0.7	2.3	0.7	4.1	-3.8	100.0	-0.5	-25.1	-10.2	10.0	-1.0	-1.3	
tt PDF	-3.5	-8.1	-2.8	-0.2	-1.7	2.6	2.6	-0.5	-1.6	-0.8	-17.5	-0.0	-0.7	0.3	10.0	-1.5	-8.7	0.6	0.7	1.2	-1.6	-6.3	5.7	0.0	0.0	0.0	-6.1	0.0	0.0	-6.1	100.0	-4.6	-2.9	-8.6	-1.8	-0.1									
tt PS	-3.2	-6.4	-2.2	6.5	4.2	-0.4	-0.5	-10.8	-11.3	-1.9	20.2	2.2	-1.8	-6.2	-0.3	0.0	0.0	-1.8	-12.5	-22.1	-5.4	-6.3	5.3	0.0	0.0	2.2	-1.8	4.2	-0.0	-0.0	-0.1	-0.4	-22.5	18.7	-25.1	100.0	-54.1	6.5	-2.6	-1.9					
tt hdamp	1.1	-6.7	-2.3	-10.6	-9.6	-1.4	-2.4	2.6	-3.6	0.1	-26.2	2.1	-1.9	3.7	10.4	4.9	0.8	6.6	2.9	3.6	-10.7	11.2	-5.7	0.8	4.4	4.4	4.4	5.7	4.4	7.4	4.4	26.4	1.3	-10.2	-2.9	-54.1	100.0	7.8	-1.7						
tt scale	-13.3	-1.2	-0.4	-0.5	-1.2	-2.1	-3.9	2.4	3.3	3.3	17.5	-3.4	3.6	0.5	4.4	-9.6	-8.7	-8.3	3.6	0.5	4.4	2.1	9.9	4.6	0.4	-3.0	2.4	-3.3	-10.9	-1.7	-7.7	10.0	-8.6	6.5	7.8	100.0	3.3	1.7							
wjet theory_uncer	1.1	-19.9	-6.9	0.9	-1.5	2.8	-0.4	0.6	1.5	2.6	3.0	-3.7	-6.5	0.9	3.7	3.2	-2.0	-2.3	4.3	4.3	0.3	0.1	0.0	0.7	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-1.6	-1.7	3.3	100.0	0.1										
ztt ckk	-0.2	0.3	0.1	3.7	6.2	-1.0	1.8	4.1	1.2	1.5	-3.1	-3.5	0.4	3.3	3.2	-4.4	1.2	2.1	1.2	4.3	0.5	0.1	-0.2	-0.5	-0.2	-1.9	-0.3	7.2	5.6	5.6	5.6	5.6	11.2	5.6	-0.6	2.4	-1.3	0.4	-1.9	1.1	1.7	0.1	100.0		