

Scenario	Experiment number	Domain size	Vertical levels	Horizontal resolution (nesting ratio)	Spin-up time
Domain size (S1)	Case 0 (C0)	D01 40 × 40; D02 72 × 72; D03 90 × 90	29 (pressure level)	D01 40.5 km; D02 13.5 km; D03 4.5 km 1 : 3 : 3	12 h
	Case 1 (C1)	D01 80 × 64; D02 120 × 120	as C0	as C0	as C0
	Case 2 (C2)	D01 160 × 128; D02 240 × 192	as C0	as C0	as C0
Vertical resolution (S2)	Optimal case in S1 (OS1)	as OS1	29	as C0	as C0
	Case 3 (C3)	as OS1	57	as C0	as C0
	Case 4 (C4)	as OS1	85	as C0	as C0
	Case 5 (C5)	as OS1	38 (model level)	as C0	as C0
Horizontal resolution (S3)	Optimal case in S2 (OS2)	as OS1	as OS2	1 : 3 : 3	as C0
	Case 6 (C6)	as OS1	as OS2	D01 40.5 km; D02 8.1 km; D03 1.62 km 1 : 5 : 5	as C0
	Case 7 (C7)	as OS1	as OS2	D01 40.5 km; D02 5.785 km; D03 0.826 km 1 : 7 : 7	as C0
Spin-up time (S4)	Optimal case in S3 (OS3)	as OS1	as OS2	as OS3	12 h
	Case 8 (C8)	as OS1	as OS2	as OS3	0 h
	Case 9–Case 19 (C9–C19)	as OS1	as OS2	as OS3	24–144 h per 12 h