

Short name	Country	Resolution	Sea ice model	Explicit lateral melt term
ACCESS1-0	Australia	$1^\circ \times 1^\circ$ tripolar	CICE4.1	As Sect. 2.4
ACCESS1-3	Australia	$1^\circ \times 1^\circ$ tripolar	CICE4.1	As Sect. 2.4
bcc-csm1-1	China	$1^\circ \times (1 - \frac{1}{3})^\circ$ tripolar	SIS	Not included (Li, 2014)
bcc-csm1-1-m	China	$1^\circ \times (1 - \frac{1}{3})^\circ$ tripolar	SIS	Not included (Li, 2014)
CanCM4	Canada	$1.875^\circ \times 1.875^\circ$ T63 Gaussian	CanSIM1	Unknown (reference N/A)
CanESM2	Canada	$1.875^\circ \times 1.875^\circ$ T63 Gaussian	CanSIM1	Unknown (reference N/A)
CCSM4	USA	$1.11^\circ \times (0.27-0.54)^\circ$ dipolar	CICE4	As Sect. 2.4
CESM1-BGC	USA	$1.11^\circ \times (0.27-0.54)^\circ$ dipolar	CICE4	As Sect. 2.4
CESM1-CAM5	USA	$1.11^\circ \times (0.27-0.54)^\circ$ dipolar	CICE4	As Sect. 2.4
CMCC-CM	Italy	ORCA-2° tripolar	LIM2	Not included (Rousset et al., 2015)
CMCC-CMS	Italy	ORCA-2° tripolar	LIM2	Not included (Rousset et al., 2015)
CNRM-CM5	France	ORCA-1° tripolar	GELATO5	Thickness-dependent parametrization (Salas Melia, 2002)
CSIRO-Mk3-6-0	Australia	$1.875^\circ \times 0.94^\circ$ T63 Gaussian	in-house	Included, but unclear how it impacts SIC (O'Farrell, 1998)
EC-EARTH	EU	ORCA-1° tripolar	LIM2	Not included (Rousset et al., 2015)
FGOALS-g2	China	$(1 - \frac{1}{2})^\circ \times (1 - \frac{1}{2})^\circ$ tripolar	CSIM5	As Sect. 2.4(Briegleb et al., 2004)
GFDL-CM2p1	USA	$1^\circ \times 1^\circ$ tripolar	SIS	Not included (Winton, 2001)
GFDL-CM3	USA	$1^\circ \times 1^\circ$ tripolar	SIS	Not included (Winton, 2001)
GFDL-ESM2G	USA	$1^\circ \times 1^\circ$ tripolar	SIS	Not included (Winton, 2001)
GFDL-ESM2M	USA	$1^\circ \times 1^\circ$ tripolar	SIS	Not included (Winton, 2001)
GISS-E2-H	USA	$1^\circ \times 1^\circ$ tripolar	in-house	Not included (Russell et al., 1995)
GISS-E2-H-CC	USA	$1^\circ \times 1^\circ$ tripolar	in-house	Not included (Russell et al., 1995)
GISS-E2-R	USA	$1^\circ \times 1.25^\circ$	in-house	Not included (Russell et al., 1995)
GISS-E2-R-CC	USA	$1^\circ \times 1.25^\circ$	in-house	Not included (Russell et al., 1995)
HadCM3	UK	$1.25^\circ \times 1.25^\circ$	in-house	Not included (Gordon et al., 2000)
HadGEM2-AO	South Korea	$1^\circ \times 1^\circ$	CICE-like	Parametrization for SIC < 5 % (McLaren et al., 2006)
HadGEM2-CC	UK	$(1 - \frac{1}{3})^\circ \times 1^\circ$	CICE-like	Parametrization for SIC < 5 % (McLaren et al., 2006)
HadGEM2-ES	UK	$(1 - \frac{1}{3})^\circ \times 1^\circ$	CICE-like	Parametrization for SIC < 5 % (McLaren et al., 2006)
inmcm4	Russia	$1^\circ \times \frac{1}{2}^\circ$	in-house	Empirical parametrization (Yakovlev, 2003)
IPSL-CM5A-LR	France	ORCA-2° tripolar	LIM2	Not included (Rousset et al., 2015)
IPSL-CM5A-MR	France	ORCA-2° tripolar	LIM2	Not included (Rousset et al., 2015)
IPSL-CM5B-LR	France	ORCA-2° tripolar	LIM2	Not included (Rousset et al., 2015)
MIROC4h	Japan	$0.28^\circ \times 0.19^\circ$	in-house	Not included (Komuro et al., 2012)
MIROC5	Japan	$1.4^\circ \times (0.5-1.4)^\circ$	in-house	Not included (Komuro et al., 2012)
MIROC-ESM	Japan	$1.4^\circ \times 1^\circ$	in-house	Not included (Komuro et al., 2012)
MIROC-ESM-CHEM	Japan	$1.4^\circ \times 1^\circ$	in-house	Not included (Komuro et al., 2012)
MPI-ESM-LR	Germany	$1.5^\circ \times 1.5^\circ$	in-house	Not included (Notz et al., 2013)
MPI-ESM-MR	Germany	$0.4^\circ \times 0.4^\circ$	in-house	Not included (Notz et al., 2013)
MRI-CGCM3	Japan	$1^\circ \times 0.5^\circ$ tripolar	in-house	Not included (Tsujino et al., 2010)
NorESM1-M	Norway	$1.11^\circ \times (0.25-0.54)^\circ$	CICE4.1	As Sect. 2.4
NorESM1-ME	Norway	$1.11^\circ \times (0.25-0.54)^\circ$	CICE4.1	As Sect. 2.4