

## Environmental models used within Cambridge, UK

Type	Model	Brief description	Primary contact(s)
Atmospheric GCM	Unified Model (e.g., HadGEM)	UK Met Office's atmospheric GCM Global to regional scales, centennial to weather scales	Luke Abraham (Chemistry) Andrew Orr (BAS)
	ATHAM	3D (and 2D) non-hydrostatic model	Michael Herzog (Geography)
	Reading IGCM	Intermediate complexity model	Mike Davey (DAMTP / Met Office)
	WRF	Regional climate, weather forecasting	Scott Hosking (BAS)
Ocean GCM	NEMO	Operational oceanography seasonal forecast and climate studies.	Adrian Jenkins (BAS)
	MITgcm	Including sea ice and ice shelves, and adjoint <sup>†</sup> capability	Paul Holland (BAS) <sup>†</sup> Dan Jones (BAS)
Atmospheric chemistry & transport	UKCA	Tropospheric-stratospheric chemistry, used with Met Office atmospheric model	Luke Abraham (Chemistry) Xin Yang (BAS)
	NAME	Dispersion model to study chemical and biological processes	Alex Archibald (Chemistry) Richard Stutt (Plant Sciences)
	p-TOMCAT	Chemistry transport model (CTM) for global tropospheric chemistry studies	Nicola Warwick (Chemistry) Rachael Rhodes (Earth Sciences) Xin Yang (BAS)
Biosphere & land surface	JULES *	Standalone land surface model, and within coupled Met Office climate model	Luke Abraham (Chemistry)
	GENIE	Earth System Models of Intermediate Complexity (EMIC)	Andrew Friend (Geography)
	HYBRID	A process-based, terrestrial biosphere model of ecosystem dynamics	Andrew Friend (Geography)
	SIMEARTH	A zero-dimensional simple ESM	Andrew Friend (Geography)
Ice sheet / ice shelves	BASISM	British Antarctic Survey ice sheet model	Richard Hindmarsh (BAS)
	BICICLES *	Adaptive mesh ice-sheet model	Adrian Jenkins (BAS)
	CISM	Community Ice Sheet Model	Marion Bougamont (SPRI)
	Elmer/Ice	Open Source Finite Element Software for Ice Sheet, Glaciers and Ice Flow Modelling	Samuel Cook (SPRI)
	Úa	Vertically integrated model of a type commonly used in glaciology	G. Hilmar Gudmundsson (BAS)
	WAVI	Wavelet-based adaptive-grid ice sheet model	Rob Arthen (BAS)
Sea ice	CICE	Standalone model, and within coupled global climate models	Paul Holland (BAS)
Fluid dynamics	DIABLO	Non-hydrostatic direct and large-eddy simulations	John Taylor (DAMTP)
Paleoclimate	HadCM3	Coupled atmosphere-ocean-ice model	Louise Sime (BAS)

Component of the UK Met Office's Earth System Model (UKESM)

(\* only used as a coupled component within the UKESM framework – not currently used as a stand-alone model within CCfCS)

*compiled by Scott Hosking, Oct 2017*