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Describing Earth system simulations with the Metafor CIM

B. N. Lawrence et al. ▾

Received: 22 May 2012 – Discussion started: 22 Jun 2012 – Revised: 11 Oct 2012 – Accepted: 26 Oct 2012 – Published: 28 Nov 2012

Abstract. The Metafor project has developed a common information model (CIM) using the ISO19100 series formalism to describe numerical experiments carried out by the Earth system modelling community, the models they use, and the simulations that result. Here we describe the mechanism by which the CIM was developed, and its key properties. We introduce the conceptual and application versions and the controlled vocabularies developed in the context of supporting the fifth Coupled Model Intercomparison Project (CMIP5). We describe how the CIM has been used in experiments to describe model coupling properties and describe the near term expected evolution of the CIM.

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How to cite: Lawrence, B. N., Balaji, V., Bentley, P., Callaghan, S., DeLuca, C., Denvil, S., Devine, G., Elkington, M., Ford, R. W., Guilyardi, E., Lautenschlager, M., Morgan, M., Moine, M.-P., Murphy, S., Pascoe, C., Ramthun, H., Slavin, P., Steenman-Clark, L., Toussaint, F., Treshansky, A., and Valcke, S.: Describing Earth system simulations with the Metafor CIM, *Geosci. Model Dev.*, 5, 1493–1500, <https://doi.org/10.5194/gmd-5-1493-2012>, 2012.