

Open Science Practices at the Community Coordinated Modeling Center

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Open Science is defined as “the principle and practice of making research products and processes available to all, while respecting diverse cultures, maintaining security and privacy, and fostering collaborations, reproducibility, and equity” by Federal Agencies. The CCMC has been practicing open science based on FAIR (Findable, Accessible, Interoperable and Reusable) principle by providing access to the state-of-the-art space science and space weather models to users around the world through various simulation services such as Runs-on-Request, Instant Runs, Real time runs on iSWA system. The CCMC also provides a wide range of tools and framework to help users easily utilize modeled data. One of the tools is the official NASA open-sourced software called Kamodo. Kamodo allows users to work with complex space weather models and data with little or no coding experience. Additionally, to support transparent model validation efforts, the CCMC is providing an integrated and flexible framework called CAMEL. CAMEL allows users to seamlessly compare model outputs with observational data sets. Currently, we are working on a user-friendly database of the papers and research that used CCMC services, so that the future users will have open access to previously performed research by other users and its details. In this presentation, we will show the open tools and resources provided by the CCMC. Furthermore, we will share our new efforts to support open data and open science results.