

Applications of custom developed object based analysis tool: Precipitation in Pacific, Tropical cyclones precipitation, Hail areas

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In the last few years an object-based analysis software tool was developed at University of Ljubljana in collaboration with National Center for Atmospheric Research (NCAR). The tool was originally based on ideas of the Method for Object-Based Diagnostic Evaluation (MODE) developed by NCAR but has since evolved and changed considerably and is now available as a separate free software package. The software is called the Forward in Time object analysis tool (FiT tool). The software was used to analyze numerous datasets - mainly focusing on precipitation. Climatology of satellite and model precipitation in the low-and-mid latitude Pacific Ocean was performed by identifying and tracking of individual perception systems and estimating their lifespan, movement and size. A global climatology of tropical cyclone precipitation was performed using satellite data and tracking and analysis of areas with hail in Slovenia was performed using radar data. The tool will be presented along with some results of applications.