



PROMES regional climate modelling over three CORDEX domains: Mediterranean area, South America and Africa

Raquel Romera (1), Enrique Sánchez (2), Marta Domínguez (3), Clemente Gallardo (3), Miguel Ángel Gaertner (2), and Manuel Castro (2)

(1) Environmental Science Institute, University of Castilla-La Mancha, Avda CarlosIII, s/n, Toledo, Spain (raquel.romera@uclm.es), (2) University of Castilla-La Mancha, Avda CarlosIII, s/n, Toledo, Spain, (3) Environmental Science Institute, University of Castilla-La Mancha, Avda CarlosIII, s/n, Toledo, Spain

During the last ten years, UCLM regional climate modelling group has participated with PROMES-RCM in the main intercomparison exercises of regional climate models: over Europe (PRUDENCE, 2002-2004, ENSEMBLES, 2004-2009), over Africa (AMMA, 2005-2009, the ENSEMBLES-AMMA study), and over South America (CLARIS, 2004-2007, CLARIS-LPB, 2008-2012). In the frame of CORDEX (COordinated Regional climate Downscaling EXperiment, http://wcrp.ipsl.jussieu.fr/RCD_CORDEX.html) international initiative, we have focused our research on three domains: South America, Africa and Mediterranean areas. The available present climate (1989-2008) results forced with ERAInterim reanalysis are studied. Several metrics and diagnostics are analysed over these domains, such as the frequency distribution functions over climatologically homogeneous subregions, or the description of drought features. These studies are expected to be a contribution from UCLM group to the intercomparison exercises that are being conducted inside CORDEX programme.