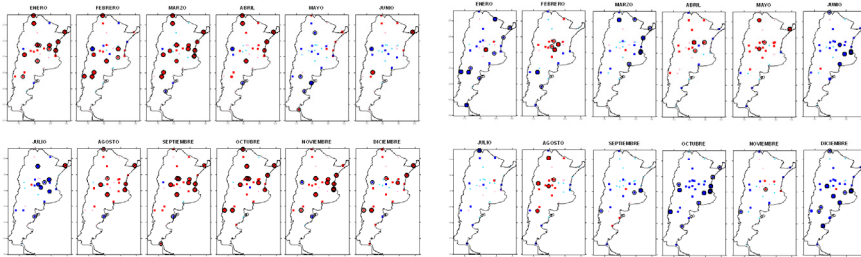
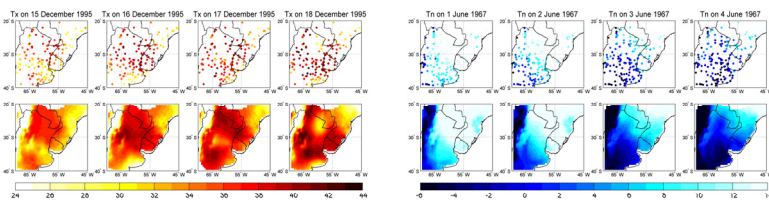


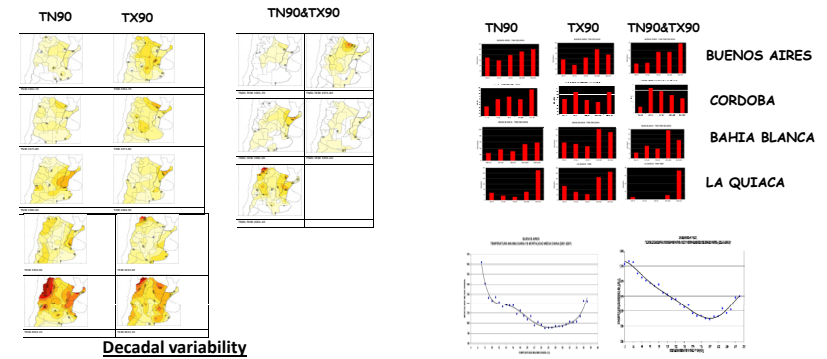
Inter monthly variability of TX10 (left) and Tn90 (right) trends 1957-2008



Daily temperature gridding

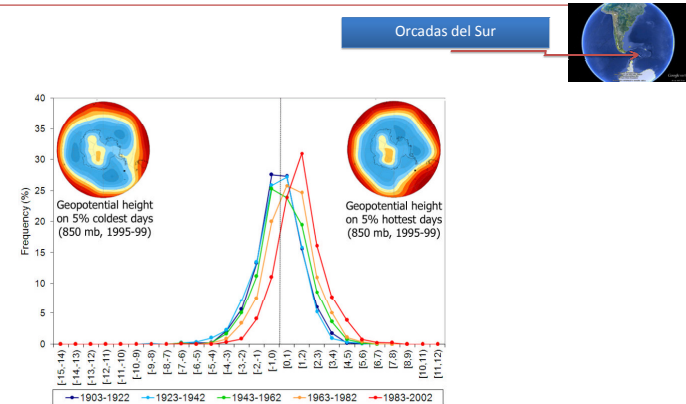


Heat waves: 3 or more consecutive days over TN90, TX90 and TN90&TX90

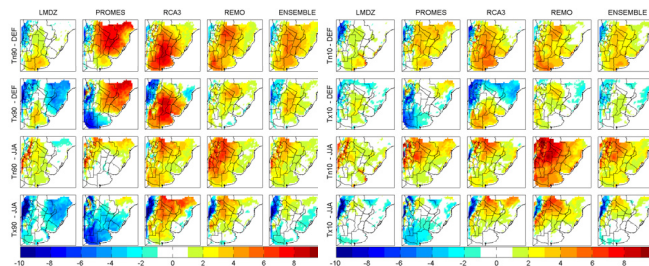
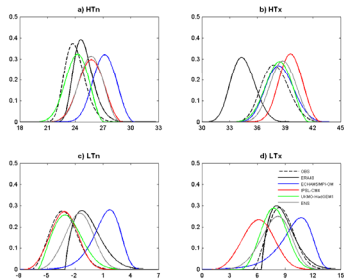


Maximum and Minimum Temp vs. Mortality – Buenos Aires

Distribution of frequencies of observations of daily temperatures during the summer season (Dec-Jan-Feb) for each 20-year period since 1903. Orcadas Station



RCM Validation



Differences (in °C) in TX90, TN90 for Summer (DJF), Winter (JJA) between LMDZ, PROMES, RCA3, REMO and the ensemble, with respect to observations. Positive values indicate model overestimation

GEV probability distribution a) HTn (Highest MinT), b) HTx (HMaxT), c) LTn (Lowest MinT), y) LTx (LMaxT) for Observed, ERA-40 and RCMs 1981-1999

References:

- Tencer, Bárbara, Rusticucci, Matilde, Analysis of interdecadal Variability of Temperature Extreme Events in Argentina applying EVT, 2012, *Atmósfera*, accepted
- Carril, A., C. Menéndez, A. Remedio, F. Robledo, A. Sörensön, B. Tencer, J.-P. Boulanger, M. de Castro, D. Jacob, H. Le Treut, L. Li, O. Penalba, S. Pfeifer, M. Rusticucci, P. Salio, P. Samuelsson, E. Sanchez and P. Zaninelli, 2012: Performance of a multi-RCM ensemble for South Eastern South America, *Climate Dynamics*, accepted.
- Rusticucci, Matilde 2012: Observed and Simulated Variability of Extreme Temperature Events over South America. *Invited Review Paper, Atmospheric Research*, 106, pp. 1-17.
- Tencer, Bárbara, Rusticucci, Matilde, Jones, Phil, Lister, David. 2011 "A Southwestern South American Daily Gridded Data Set of Observed Surface Minimum and Maximum Surface Temperature for 1960-2000, *BAMS* 92 (10), pp. 1339-1346.
- Renom Madeleine, Rusticucci Matilde, Barreiro, Marcelo, 2011: Multidecadal changes in the relationship between extreme temperature events in Uruguay and the general atmospheric circulation. *Climate Dynamics*, 37 (11-12), pp. 2471-2480
- Zazulie, Natalia, Rusticucci, Matilde, Solomon, Susan, 2010: Changes in Antarctic Climate: A Unique Daily Record at Orcadas spanning 1903-2008, *J. Climate* vol 23 (DOI 10.1175/2009JCLI3074.1) 189-196
- Barrucand, Mariana, Rusticucci Matilde, Variabilidad Intraestacional de los extremos de temperatura de invierno, *PIUBACC* 2011
- Almeira, Gustavo, Rusticucci, Matilde, Olas de calor en Argentina, *Congremet XI*, 2012