

Letter from the Editor

In this issue we continue to publish review articles focused mainly in mid-latitudes and the Latin American area, as a way of celebrating the 25th anniversary of *Atmósfera*. In this occasion, Chilean researchers *P. Monsalves Gavilán*, *J. Pincheira Ulbrich* and *F. Rojo Mendoza* address a subject of great importance: studies on climate change and its effects on urban environments. In their article “Climate change and its effects on urban spaces in Chile: A summary of research carried out in the period 2000-2012”, they systematize the effects associated with climate change on urban spaces in Chile reported between 2000 and 2012, based on a review of three databases: Scopus, Web of Knowledge and Scielo, and find out that only 14 research papers relate to climate change in urban spaces, most of which are case studies focused on the capital, Santiago. This fact, on the other hand, reflects something that can be said about the Latin American region: there is a need for more research on the impact of climate change on urban areas.

Our regular articles cover a diversity of issues, but incidentally only a single location: Mexico. *S. Novo* and *G. Raga* investigate the properties of convective storms over central Mexico based on radar data from Cerro Catedral, a station near Mexico City, and find out that while the number of storms per unit area increases with terrain height, the average values for properties related to size and intensity, decrease. In a preliminary analysis of thermal anomalies before the Baja California M7.2 earthquake occurred on April 4, 2010, *Y. Jie* and *G. Guangmeng* find that on the closest meteorological station to the epicenter, air temperature reaches its maximum value on March 30, and air temperature data from the National Centers for Environmental Prediction Final Operational Global Analysis show also a maximum temperature change between March 30 and 31 at the epicenter grid point, while the other surrounding 7199 grid points show medium to low temperature change. *A. López Santos et al.* model the deterioration of natural resources (especially water and soil) that results from the global effects of climate change for the period 2010-2039, and based on anomalies for mean annual rainfall and temperature estimate an average impact of approximately 63% caused by laminar wind erosion, and a change in the aridity index from its historical value of 9.3 to 8.7, in a future climate change scenario. *N. Santillán Soto et al.* measured global solar radiation and its energy potential in Mexicali, Baja California, and Yuma, Arizona, located only 96 km apart in the United States-Mexico border, in order to advise the use of solar energy in both cities as a measure for mitigating the impact of climate change. *O. R. García Onofre et al.* study the temporal trend of annual temperatures from 1950 to 2010 in the same region of Mexicali, and provide estimates of 5- to 100-year return periods by modeling summer maximum and winter minimum temperatures in this extreme climate zone of Mexico. *B. S. Barret* and *M. I. Esquivel Longoria* examine the variability of precipitation and temperature on multiple time scales in the center of the state of Guanajuato, finding out that the frequency of days with total precipitation exceeding the 90th percentile did not increase from 1979-2011, in contrast with days with maximum temperature above the 90th percentile (which more than doubled), and frequency of days with maximum temperature below the 10th percentile (which decreased by almost half over the same period). Finally, *S. E. Lluch-Cota et al.* present an assessment of sea surface temperature change signals in the seas off Mexico, compare the data to other regions and the world ocean, and discuss the potential interactions of temperature trends with fisheries and coastal sensitive ecosystems.

Sincerely,

Carlos Gay

Chief Editor