

EGU21-11981

<https://doi.org/10.5194/egusphere-egu21-11981>

EGU General Assembly 2021

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



## Impact of climate change on the future of tourism areas in the Canary Islands

**Judit Carrillo**, Albano González, Juan C. Pérez, Francisco J. Expósito, and Juan P. Díaz

Grupo de Observación de la Tierra y la Atmósfera (GOTA), Universidad de La Laguna (ULL), Canary Islands, Spain  
(jcarrill@ull.edu.es)

Tourism is an essential sector of the economy of the Canary Islands. Tourism Climate Index (TCI) and Holiday Climate Index (HCI) are good indicators of environmental conditions for leisure activities. Regional climate model (RCM) has been addressed to analyze the impact of climate change on the indices of tourist areas. The initial and boundary conditions for future scenarios are prescribed through three CMIP5 models (GFDL, IPSL and MIROC) surface and lateral boundary conditions within the Meteorological Research and Forecast (WRF), with a high resolution, 3x3 km. Two time periods (2030 – 2059, and 2070-2099) and two Representative Concentration Pathways (RCPs 4.5 and 8.5) are considered. Tourism indicators are projected to improve significantly during the winter and shoulder seasons, but will worsen in the summer months, including October, in the southeast, which is where hotels are currently located.