## Supporting Information for

## Modeling the effects of present-day irrigation on temperature extremes over China

Xiao Li<sup>1,2</sup>, Xing Li<sup>1\*</sup>, Wenjian Hua<sup>2</sup>, Hedi Ma<sup>3</sup>, Juan Zhou<sup>1</sup> and Xueqi Pang<sup>4</sup>

<sup>1</sup> Plateau Atmosphere and Environment Key Laboratory of Sichuan Province, College of Atmospheric Science, Chengdu University of Information Technology, Chengdu, China.

<sup>2</sup> Key Laboratory of Meteorological Disaster, Ministry of Education (KLME)/Joint International Research Laboratory of Climate and Environment Change (ILCEC)/Collaborative Innovation Center on Forecast and Evaluation of Meteorological Disasters (CIC-FEMD), Nanjing University of Information Science and Technology, Nanjing, China.

<sup>3</sup> Hubei Key Laboratory for Heavy Rain Monitoring and Warning Research, Institute of Heavy Rain, China Meteorological Administration, Wuhan, China.

<sup>4</sup> Department of Atmospheric and Oceanic Sciences, Fudan University, Shanghai, China.

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## Introduction

This file contains irrigation-induced changes in threshold-based indices (Figure S1), duration indices (Figure S2) and nighttime ground-air temperature difference (Figure S3).



**Figure S1**. Irrigation-induced changes in multiyear mean threshold-based indices (units: days): (a) summer days (SU), (b) ice days (ID), (c) tropical nights (TR) and (d) frost days (FD). Note that the solid (hollow) black dots in the figures indicate a greater than "strong" ("moderate") degree of consistency among the results of the ensemble members (i.e., statistically significant changes at the 90% confidence level are observed for 3 (2) out of 4 simulation pairs).



**Figure S2**. Same as Figure S1, but for duration indices (units: days): (a) warm spell duration (WSDI), (b) cold spell duration (CSDI) and (c) growing season length (GSL). The meanings of solid and hollow dots are the same as Figure S1.



**Figure S3**. Irrigation-induced changes in nighttime (18 UTC) ground-air temperature difference, units: °C. The meanings of solid and hollow dots are the same as Figure S1.