

Award-winning paper in 2022

Papers published in *Water Management* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 13 October 2023, ICE president Keith Howells presented an award to the following paper published in *Water Management* in 2022. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the awards.

Robert Alfred Carr Prize

The Robert Alfred Carr Prize, presented for the best paper published in *Water Management*, was awarded to Mattiuzi *et al.* (2022).

Abstract

Promoting economically efficient solutions to meet competing demands for water under uncertain and variable supplies requires knowledge about the economic value of water and costs for its scarcity. In this work, an agricultural production optimisation model was used to evaluate the marginal value of water (MVW) in an agricultural region of rice and soybean growing in southern Brazil. The results indicate a MVW of 0.02–0.09 R\$/m³ (1 R\$ = £0.14), which is higher than common values considered for water charges for agricultural uses in Brazilian watersheds. The total scarcity costs of two recent drought periods were also investigated – these were approximately R\$138 million (£19 million) and accounted for up to 15.5% of irrigated rice and soybean agriculture net return in some of the studied regions. Finally, the potential for cropping mix changes for some regions was explored through short-term water reallocation programmes to mitigate drought impacts. The results of this work should be useful in the design of water policies in terms of improved economic water management instruments, key infrastructure investments to be prioritised by watershed plans, strategies to integrate with other sectoral policies to secure funding for new water infrastructure and strategies to reinforce local adaptation through crop mix changes and short-term water reallocation.



Robert Alfred Carr Prize winner Camila Mattiuzi with ICE president Keith Howells

REFERENCE

Mattiuzi CDP, Marques GF, Medellin-Azuara J and Dalcin AP (2022) The economic value of water in crop productions and policy implications in southern Brazil. *Proceedings of the Institution of Civil Engineers – Water Management* 175(1): 1–13, <https://doi.org/10.1680/jwama.19.00084>.