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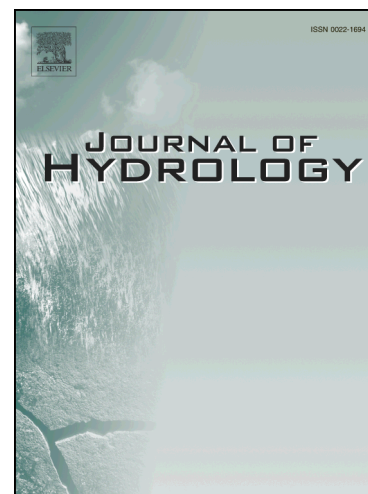
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An integrated model of water resources optimization allocation based on projection pursuit model -Grey Wolf Optimization method in a transboundary river basin

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Abstract: Under the effects of global change, water crisis ranks as the top global risk in the future decade, and water conflict in transboundary river basins as well as the geostrategic competition led by it is most concerned. This study presents an innovative integrated PPMGWO model of water resources optimization allocation in a transboundary river basin, which is integrated through the projection pursuit model (PPM) and Grey Wolf Optimization (GWO) method. This study uses the Songhua River basin and 25 control units as examples, adopting the PPMGWO model proposed in this study to allocate the water quantity. Using water consumption in all control units in the Songhua River basin in 2015 as reference to compare with optimization allocation results of firefly algorithm (FA) and Particle Swarm Optimization (PSO) algorithms as well as

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