

**EXPLICIT SOLUTIONS OF THE EXTENDED SKOROKHOD PROBLEMS
IN TIME-DEPENDENT BOUNDED REGIONS WITH ORTHOGONAL
REFLECTION FIELDS**

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Abstract: We consider the extended Skorokhod problem for \mathbb{R}^n -valued càdlàg functions with the constraining set that changes in time and the reflection field naturally defined by the standard orthonormal basis. We find an explicit formula for the solution of such an extended Skorokhod problem in the case where the evolving constraining set is a region sandwiched between two graphs. We obtain the best Lipschitz constant for the extended Skorokhod map of this type.

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