

A POSTERIORI ERROR ANALYSIS FOR A DISTRIBUTED OPTIMAL CONTROL PROBLEM GOVERNED BY THE VON KÁRMÁN EQUATION

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ABSTRACT

In the talk, the adaptive estimator will be discussed for the distributed optimal control problem governed by the von Kármán equation defined on a polygonal domain in \mathbb{R}^2 . The state and adjoint variables are discretised using the nonconforming Morley finite element method and the control is discretized using piecewise constant functions. The derived *a posteriori* error estimates are efficient, and the numerical results confirm it.

REFERENCES

- [1] Sudipto Chowdhury, Asha K. Dond, Devika Shylaja, Neela Nataraj. *A posteriori error analysis for a distributed optimal control problem governed by the von Kármán equation*, Accepted for publication in ESAIM: Mathematical Modelling and Numerical Analysis, 2022.

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