

Discrete weak duality of hybrid high-order methods for convex minimization problems

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This talk derives a discrete dual problem for a prototypical hybrid high-order method for convex minimization problems. The discrete primal and dual problem satisfy a weak convex duality that leads to a priori error estimates with convergence rates under additional smoothness assumptions. This duality holds for general polyhedral meshes and arbitrary polynomial degrees of the discretization.

References:

[1] https://arxiv.org/abs/2308.03223