

We focus on finite element method computations. We show that systems of linear equations resulting from Galerkin discretizations with C^1 test functions are algebraically equivalent to systems of linear equations resulting from discretizations with piece-wise constant test functions. We show that test functions that fulfill the partition of unity can be eliminated from the system of linear equations. The rows of the system matrix can be combined, and the test functions can be summed up to 1 using the partition of unity property at the quadrature points. The test functions in higher continuity IGA can be set to piece-wise constants without losing any accuracy. It is equivalent to testing with piece-wise constant basis functions, with supports span over some parts of the domain. This observation has the following consequences. The numerical integration cost can be reduced because we do not need to evaluate the test functions since they are equal to 1. This reduction of test functions can be performed for an arbitrary linear differential operator resulting from the Galerkin method applied to a PDE where we use C^1 continuity basis functions. This observation is valid for any basis functions preserving the partition of unity property. It is independent of the problem dimension and geometry of the computational domain. It also can be used in time-dependent problems, e.g., in the explicit dynamics computations, where we can reduce the cost of generation of the right-hand side. In particular, this observation works for any computational problem that can be solved using the Galerkin method with isogeometric analysis with higher continuity test functions. The Galerkin approximation with C^1 continuity is equivalent to linear combinations of the collocations at points and with weights resulting from applied quadrature, over the spans defined by supports of test functions.