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Bernstein-Bézier finite elements of arbitrary order and optimal assembly procedures  
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*MSC Classification:* 65N30

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*Keywords:* Bernstein-Bézier polynomials; Spectral/ $h_p$  finite element methods; Arbitrary order

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*Review text:*

The authors derive finite element spaces by using the Bernstein-Bézier polynomials of arbitrary order. The features of the algorithms presented by the authors are applicable to nonlinear problems and do not rely on precomputed arrays containing values of one-dimensional basis functions at quadrature points. Numerous examples using Bernstein-Bézier polynomials are presented, e.g. prismatic Bernstein-Bézier finite element, quadrilateral Bernstein-Bézier finite element, and hexahedral Bernstein-Bézier finite element.

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