

**Brezzi, F.; Douglas, Jim jun.; Marini, L. D.**

**Variable degree mixed methods for second order elliptic problems.** (English) Zbl 0592.65073  
Mat. Apl. Comput. 4, 19-34 (1985).

This paper generalizes the mixed finite elements. The local degree of the elements is allowed to vary over a polygonalization of the domain. Simple transition triangles and rectangles as well as composite transition ones are developed. The hybrid version of the variable degree mixed method is mentioned and error estimates are derived.

Reviewer: V.Drápalík

**MSC:**

- 65N30** Finite element, Rayleigh-Ritz and Galerkin methods for boundary value problems involving PDEs
- 35J25** Boundary value problems for second-order elliptic equations

Cited in **1** Review  
Cited in **12** Documents

**Keywords:**

composite transition elements; mixed finite elements; local degree; error estimates