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**A FINITE VOLUME ELEMENT METHOD WITH BILINEAR  
IMMERSED FINITE ELEMENTS**

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This paper discusses a finite volume element method with bilinear immersed finite element(IFE) for solving second order elliptic boundary value problems with discontinuous coefficients . This method possesses both the advantages of finite volume element method and those of IFE. It also overcomes a disadvantage of IFE. The numerical exmaples show that the numerical solution of this method converges to the exact solution with convergence rates  $O(h^2)$  and  $O(h)$  in the  $L^2$  norm and  $H^1$  norm, respectively.

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