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**High-order accurate implementation of solid wall boundary conditions in curved geometries.**  
(English) [Zbl 1138.76403](#)

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**Summary:** We propose a new technique to implement solid wall boundary conditions for steady two-dimensional Euler equations for problems in curved geometries. The technique is to be used with high-order methods on unstructured, straight-sided element meshes. By modeling flow around a physical rather than computational geometry, significant improvement in quality of the solution is achieved. The technique does not require a complex reconstruction and is easy to implement. Examples are presented to demonstrate validity of the new approach.

**MSC:**

**76M25** Other numerical methods (fluid mechanics) (MSC2010)  
**65M50** Mesh generation, refinement, and adaptive methods for the numerical solution of initial value and initial-boundary value problems involving PDEs

Cited in **55** Documents

**Software:**

[HE-E1GODF](#)

**Full Text:** [DOI](#)

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