

## Investigation of WENO Scheme for 3D Unstructured Grids

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The paper presents a comparison of WENO (Weighted Essentially Non Oscillatory) reconstruction applied within two common approaches to Finite Volume Method (FVM), i.e. Cell Centered (CC) and Vertex Centered (VC) method, which are used for simulation of compressible inviscid flows. The subject of our interest was the reconstruction algorithm based on WENO scheme for 3D meshes. This kind of reconstruction allows keeping high order also in the vicinity of strong discontinuities (shock waves) without introducing oscillations. The CC and VC methods were subject to comparison in order to assess their quality with regards to accuracy of the scheme and to the computational cost. The CC method was found producing more accurate results than VC method but it was obtained at higher computational cost. The detailed analysis will be presented for 3D supersonic flow in a channel and for the Onera M6 wing.

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