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Yinlin Dong* (yinlin@uta.edu), University of Texas at Arlington, Department of Mathematics, Arlington, TX 76019, and **Zhengjie Wang**. *Construction Methodology of Weighted Upwind Compact Scheme*.

High order compact scheme has good resolution, correspondingly, good dispersion properties. On the other hand, high order compact scheme has been hampered by dissipation's seesaw game between stencils and combined scheme. In this paper, a methodology to compromise dissipation and dispersion in constructing Weighted Upwind Compact Scheme has been derived. Also, several numerical test cases have been shown. (Received September 15, 2016)