Non-obtuse remeshing with a guaranteed angle bound

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Abstract—In this paper, we propose a triangular remeshing method with a *guaranteed* angle bound of $[30°, 90°]$. Given a original 2-manifold, open or closed, a rough approximate mesh with the proposed angle bound is first generated. This is achieved by a novel extension of the classical marching cubes algorithm. Next, an iterative constrained optimization, along with constrained Laplacian smoothing, decimation, and subdivision, is performed to arrive at a close approximation of the original mesh.

Index Terms—Remeshing, non-obtuse meshes, marching cube, deform-to-fit.

1 Introduction

THIS demo file is intended to serve as a "starter file" for IEEE Computer Society journal papers produced under LaTeX using IEEEtran.cls version 1.7 and later. I wish you the best of success.

mds
January 11, 2007

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2 Conclusion

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Appendix A
Proof of the First Zonklar Equation

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Appendix B

Appendix two text goes here.

Acknowledgments

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References

[1] H. Kopka and P.W. Daly, *A Guide to LaTeX*, third ed. Harlow, U.K.: Addison-Wesley, 1999.

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Michael Shell Biography text here.

John Doe Biography text here.

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