

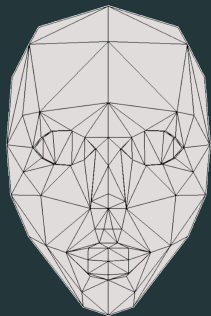
# PN TRIANGLES

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Advanced Computer Graphics



INPUT MESH



GOURAUD



PN GEOMETRY



PN TRIANGLES

## SINGLE PN TRIANGLE

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Bezier and Bernstein recap/why cubic?



Missing  
figure

Flat triangle picture, with uniform  
distributed control points

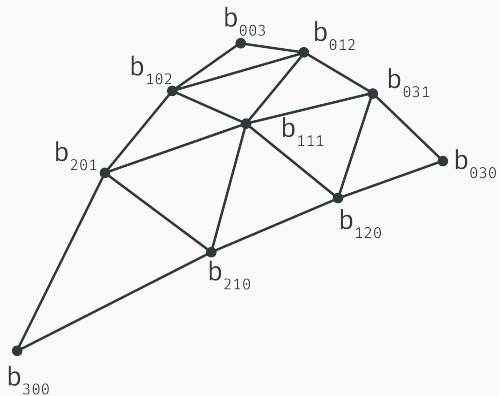
$$b_{ijk} = (iP_1 + jP_2 + kP_3)/3$$



Figure 6 of the paper



Figure 3 with center down.



$$A^2 + B^2 = C^2$$



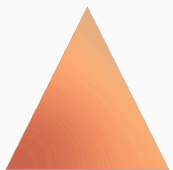
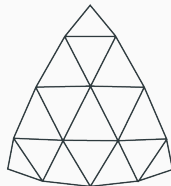
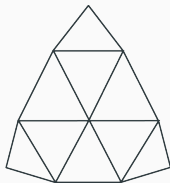
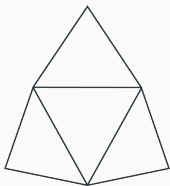
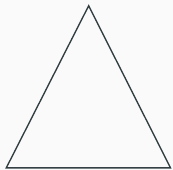
How do you create the PN triangle normals

Quadratic why no linear / cubic

Barycentric coordinates recap

# LEVEL OF DETAIL

## LOD verhaal



0



1



2



3

The steps. Recap of everything construct geometry and normals and evaluate less (low lod) or more points (high lod)

## A TRIANGLE MESH

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Shared normals + [Thales of Milet, 500 BC]?

Continuity recap?



Continuity

Sharp edges

# GRAPHICS PIPELINE

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Waarom waren PN triangles hip in 2001? Plus pipeline

Hoe zou je het nu kunnen implementeren? Plus pipeline

## CONCLUSION

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Questions?

## REFERENCES

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References