Procedural Generation Using Quantum Circuits

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Background on Procedural Generation

Procedural Generation of:

- Maps
- Levels
- Puzzles
- Stories for games

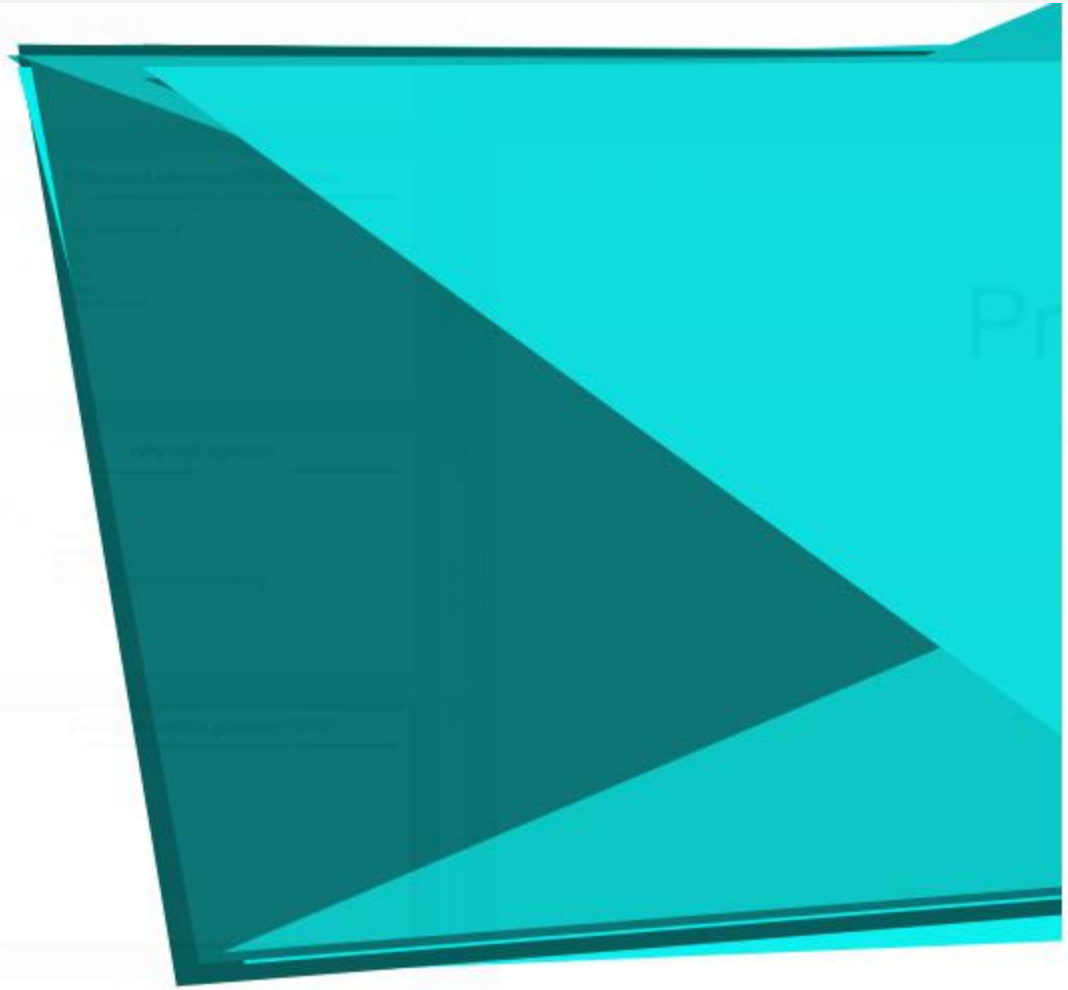
Procedural Generation Techniques

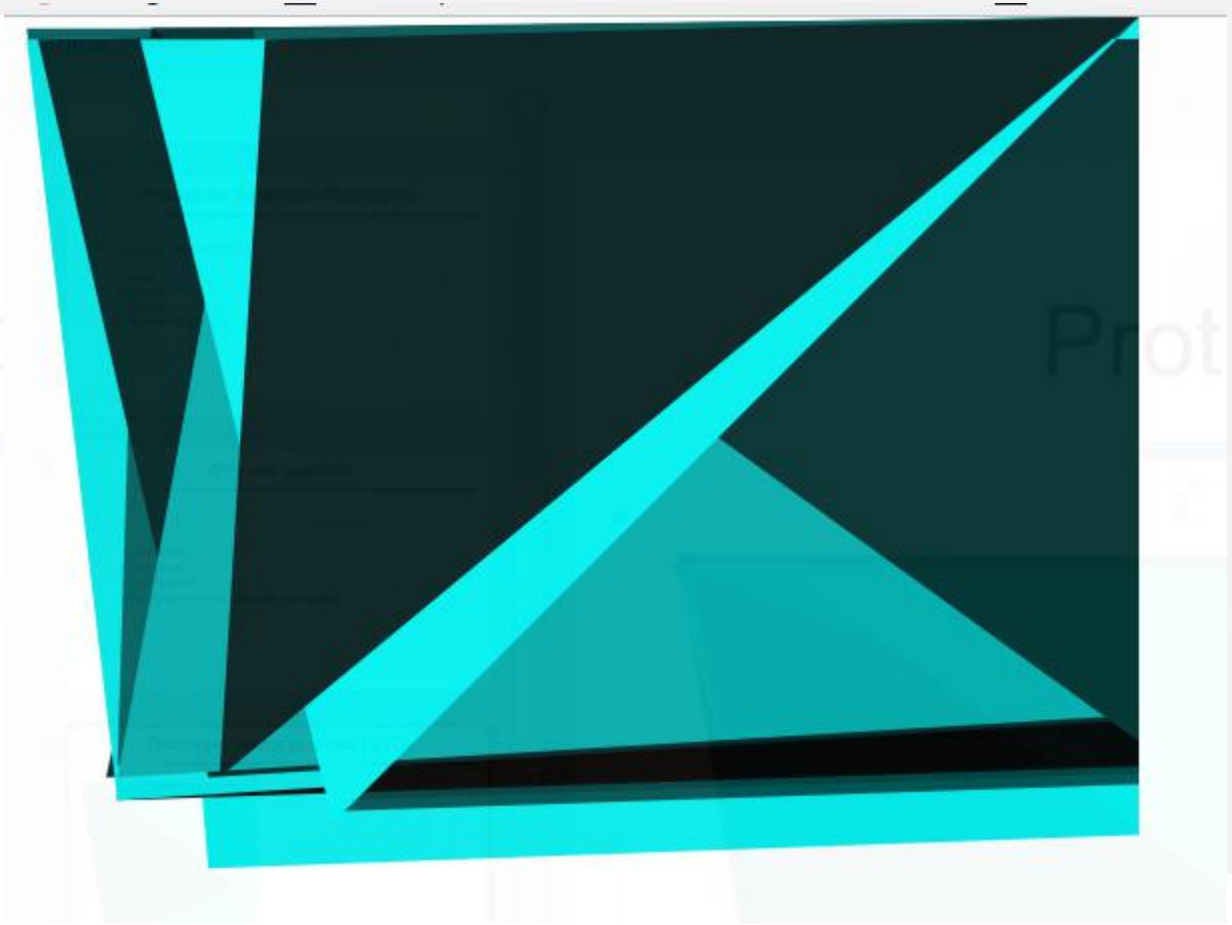
- Seeded strings
- Perlin noise
- Recursive formula

Why use quantum

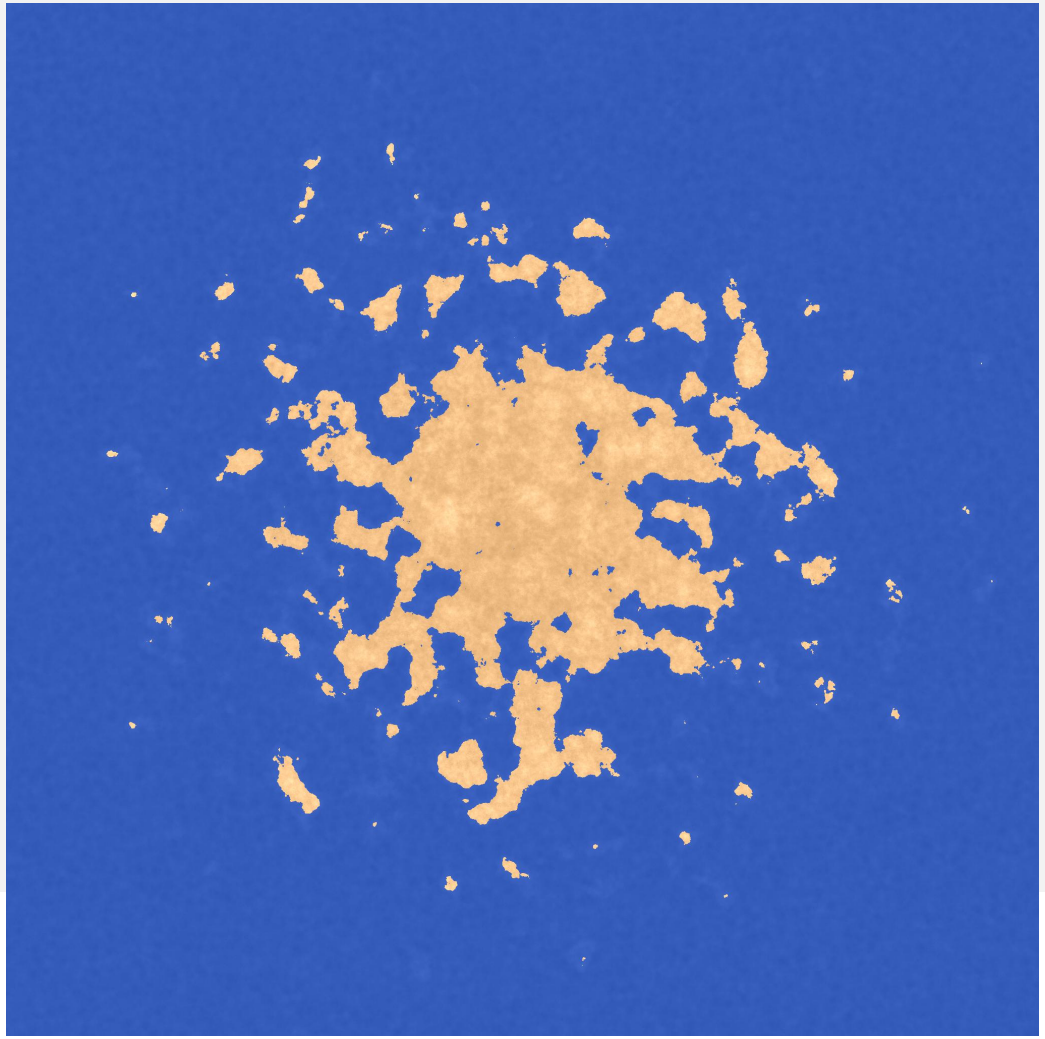
- Scalability
- Speed up
- Randomess
- Reduction in computational complexity

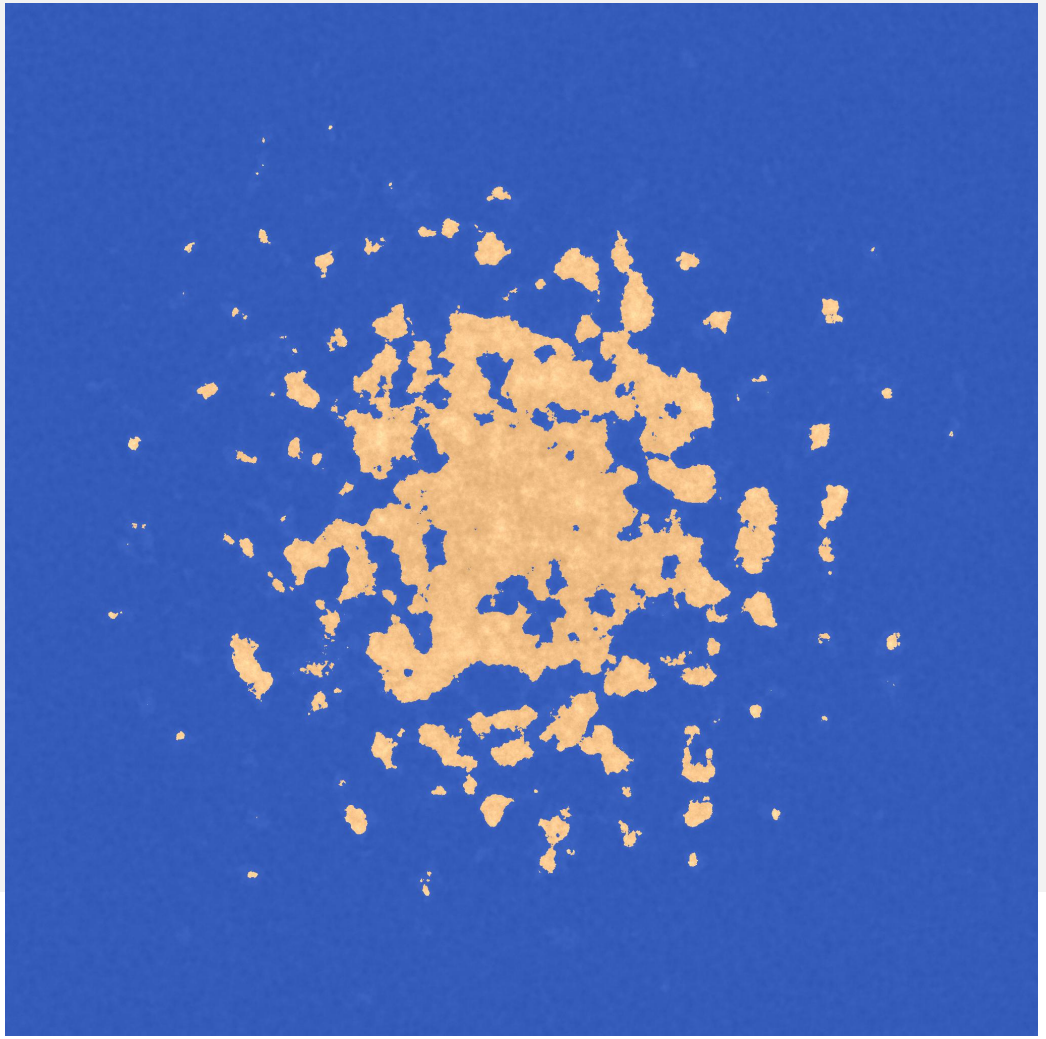
Prototype: Vector graphics (SVG)





Prototype: Raster Graphics and Perlin noise





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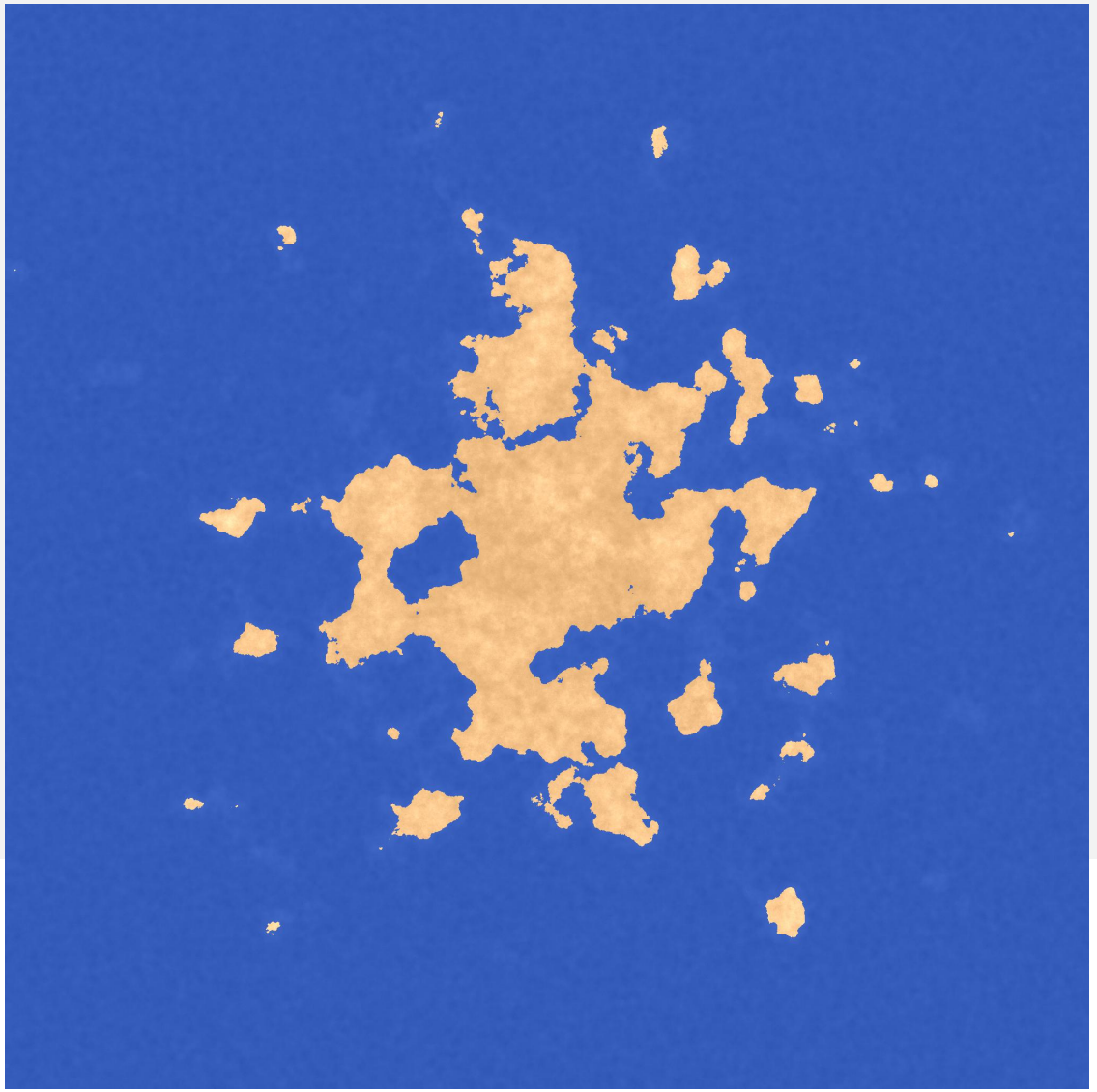
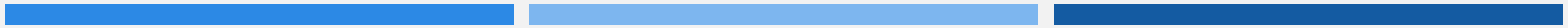


Conclusion

Possible improvements:

- Landscapes
- Using more qubits and other gate types



Thanks