POISSON EQUATION’S APPLICATION IN COMPUTER GRAPHICS

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Develop fast, scalable tools for solving the Poisson equation on triangulated surfaces by:

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- Specializing general-purpose algorithms to the special case of mesh geometry
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- Specializing general-purpose algorithms to the special case of mesh geometry
- Adapting solvers to a context where scalability is needed (e.g., massive data sets and distributed platforms)
· Understanding Poisson Equation and different situations where it is applied
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• Specialize general-purpose Poisson Equation solver for optimization
CHALLENGES

- Understanding Poisson Equation and different situations where it is applied
- Specialize general-purpose Poisson Equation solver for optimization
- Writing parallel, scalable programs
The deliverable will be an easy-to-use package for solving Poisson equations that provides users with several different solvers, with the goal of improving on the state of the art.
INTERESTING THINGS ABOUT THIS PROJECT...

Being able to visualize math
Will read different algorithms on different papers, and will write code that can be used to better (hopefully) implement them.