

Desbrun's operator for
triangle meshes

Gradient of voronoi area ∇A

$$\Delta(v_i) = \underbrace{2\kappa_H \mathbf{n}}_{\text{Mean curvature normal}} = \underbrace{\frac{\nabla A}{A}}_{\text{Area around } v_i} = \underbrace{\frac{1}{A}}_{\text{Area around } v_i} * \underbrace{\frac{1}{2} \sum_j (\cot \alpha_j + \cot \beta_j)(v_i - v_j)}_{\text{Gradient of voronoi area } \nabla A}$$

Area around v_i

Mean curvature
normal

