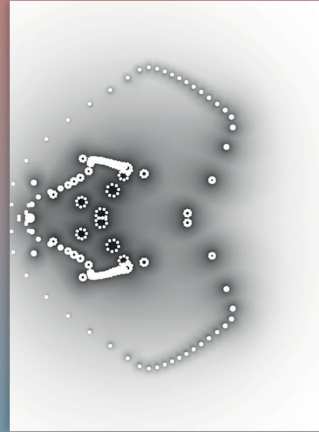
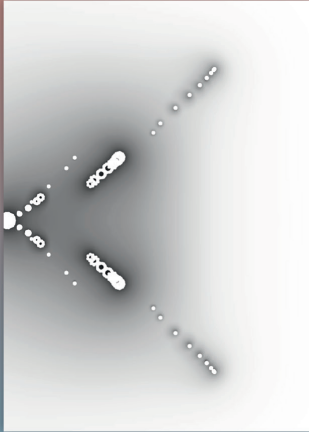


$$\mathbf{T}_{\text{MG}}(\nu, \eta) = \left(\mathbf{I} - \mathbf{P}_{\text{post}}^{-1} \mathbf{M} \right)^\nu \left(\mathbf{I} - \mathbf{T}_C^F \tilde{\mathbf{M}}^{-1} \mathbf{T}_F^C \mathbf{M} \right) \left(\mathbf{I} - \mathbf{P}_{\text{pre}}^{-1} \mathbf{M} \right)^\eta$$

$$\mathbf{T}_{\text{PFASST}} = \left(\mathbf{I} - \hat{\mathbf{P}}_{[t_0, T]}^{-1} \mathbf{M}_{[t_0, T]} \right) \left(\mathbf{I} - \mathbf{T}_C^F \tilde{\mathbf{P}}^{-1} \mathbf{T}_F^C \mathbf{M}_{[t_0, T]} \right)$$



$$\Lambda_\epsilon(\mathbf{A}) = \{ \lambda \in \mathbb{C} \mid \exists \mathbf{x} \in \mathbb{C}^n \setminus \{0\}, \exists \mathbf{F} \in \mathbb{C}^{n \times n} : (\mathbf{A} + \mathbf{F})\mathbf{x} = \lambda \mathbf{x}, \|\mathbf{F}\| \leq \epsilon \}$$

$$\frac{S(K_s, K_p, L, P)}{S(K_s, K_p, L, 2P)} = \frac{T(K_p, L, 2P)}{T(K_p, L, P)} = \frac{2P - 1 + \frac{L}{2P} K_p (\nu + \alpha)}{P - 1 + \frac{L}{P} K_p (\nu + \alpha)}$$

A multigrid perspective on the parallel full approximation scheme in space and time

Dieter Moser

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Institute for Advanced Simulation (IAS)
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