

$$\frac{1}{2}\Delta(f_{ij}f^{ij}) = 2 \left( \sum_{i < j} \chi_{ij}(\sigma_i - \sigma_j)^2 + f^{ij}\nabla_j\nabla_i(\Delta f) + \right. \\ \left. + \nabla_k f_{ij}\nabla^k f^{ij} + f^{ij}f^k \left[ 2\nabla_i R_{jk} - \nabla_k R_{ij} \right] \right) \quad (1)$$