Fluid Simulation

Bachelor Projekt

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Inhaltsverzeichnis

$$\frac{5}{14\pi H^2} \times \begin{cases} (2 - \frac{||position1 - position2||}{H})^3 - 4 \times (1 - \frac{||position1 - position2||}{H})^3 & \text{if } 0 \leq \frac{||position1 - position2||}{H} < 1 \\ (2 - \frac{||position1 - position2||}{H})^3 & \text{if } 1 \leq \frac{||position1 - position2||}{H} < 2 \\ 0 & \text{otherwise} \end{cases}$$

$$\frac{\text{position1} - \text{position2}}{\frac{5}{14\pi H^3}} \times \text{distance} \times \begin{cases} -3 \times (2 - \frac{\text{distance}}{H})^2 + 12 \times (1 - \frac{\text{distance}}{H})^2 & \text{if } 0 \leq \frac{\text{distance}}{H} < 1 \\ -3 \times (2 - \frac{\text{distance}}{H})^2 & \text{if } 1 \leq \frac{\text{distance}}{H} < 2 \\ 0 & \text{otherwise} \end{cases}$$

0.1 Introduction