Efficient solution of Poisson's equation with free boundary conditions

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II. INTERPOLATING SCALING FUNCTIONS

$\mathbf{r}_{\cdot_1,\cdot_2,\cdot_3} = (\cdot_1, \cdot_2, \cdot_3)$ $\cdot_1,\cdot_2,\cdot_3$

$= (\mathbf{r}_{\cdot_1 j \cdot_2, \cdot_3}),$

[illegible] 3 [illegible]

1/8 [illegible]

[illegible] H [illegible] 16

17 ([illegible])

[illegible]

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APPENDIX: PROOF OF EQ. (6)

... (6). $\phi(\ )$ ... $\rho_{s_1 s_2 s_3}$ ...

$$\rho(\ ) = \sum_{s_1 s_2 s_3} \rho_{s_1 s_2 s_3} \phi(\ _{s_1}) \phi(\ _{s_2}) \phi(\ _{s_3}). \quad (1)$$

$$\sum_{s_1 s_2 s_3} s_1^{1} s_2^{2} s_3^{3} \rho_{s_1 s_2 s_3} = \int \mathbf{r}\ ^{1}\ ^{2}\ ^{3} \rho(\mathbf{r}) \quad 0 \leqslant\ _1,\ _2,\ _3 < \ . \quad (2)$$

... 19 ...

$$= \int \phi(\ ) \quad = \delta, \quad = 0, \ldots, \quad 1. \quad (3)$$

$$\int \phi(\ ) = \int \phi(\ )(\ +\ )$$

$$= \int \phi(\ ) \sum_{=0} \ = $$

... (1) ... (2) ...