

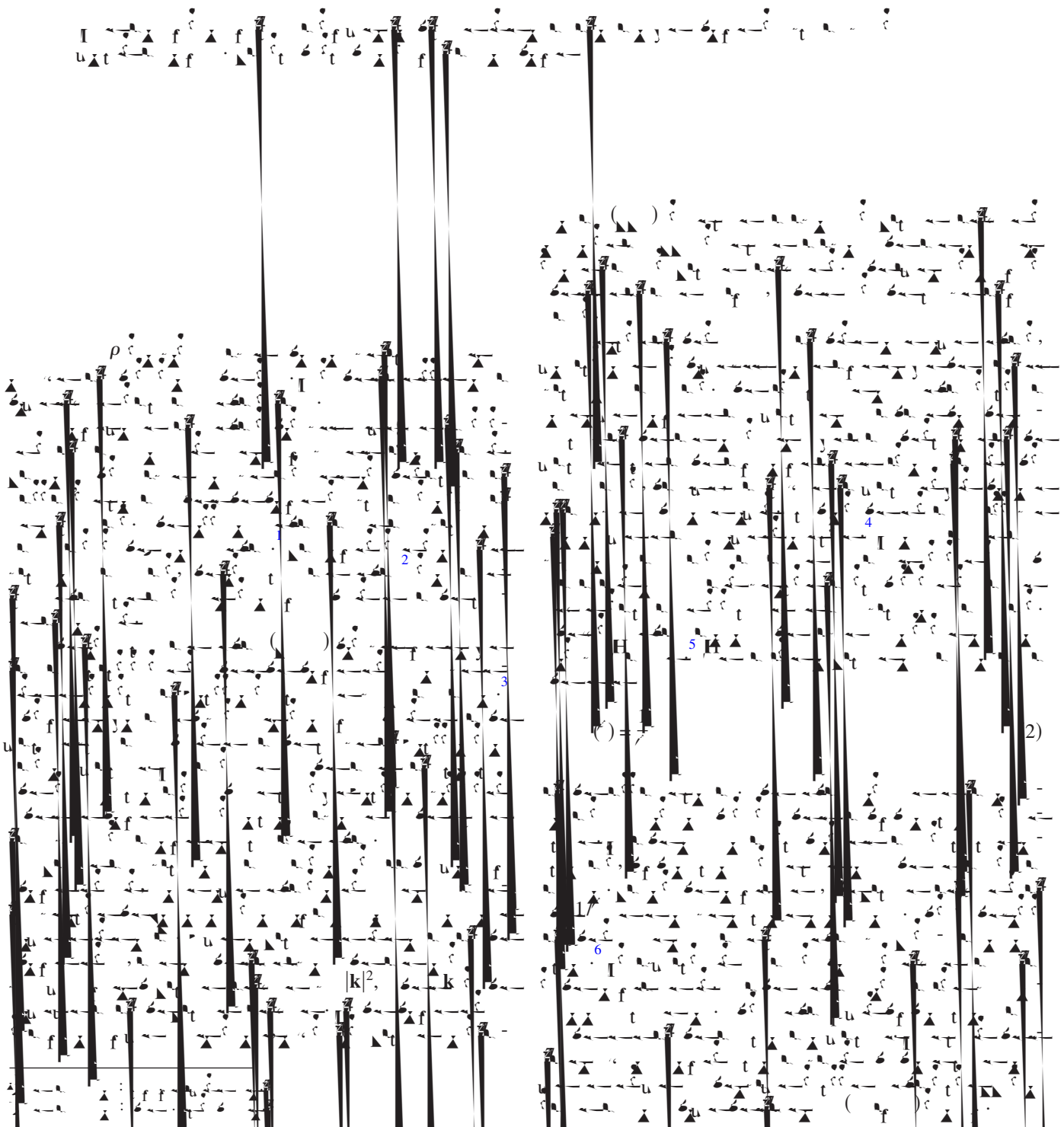
# Efficient solution of Poisson's equation with free boundary conditions

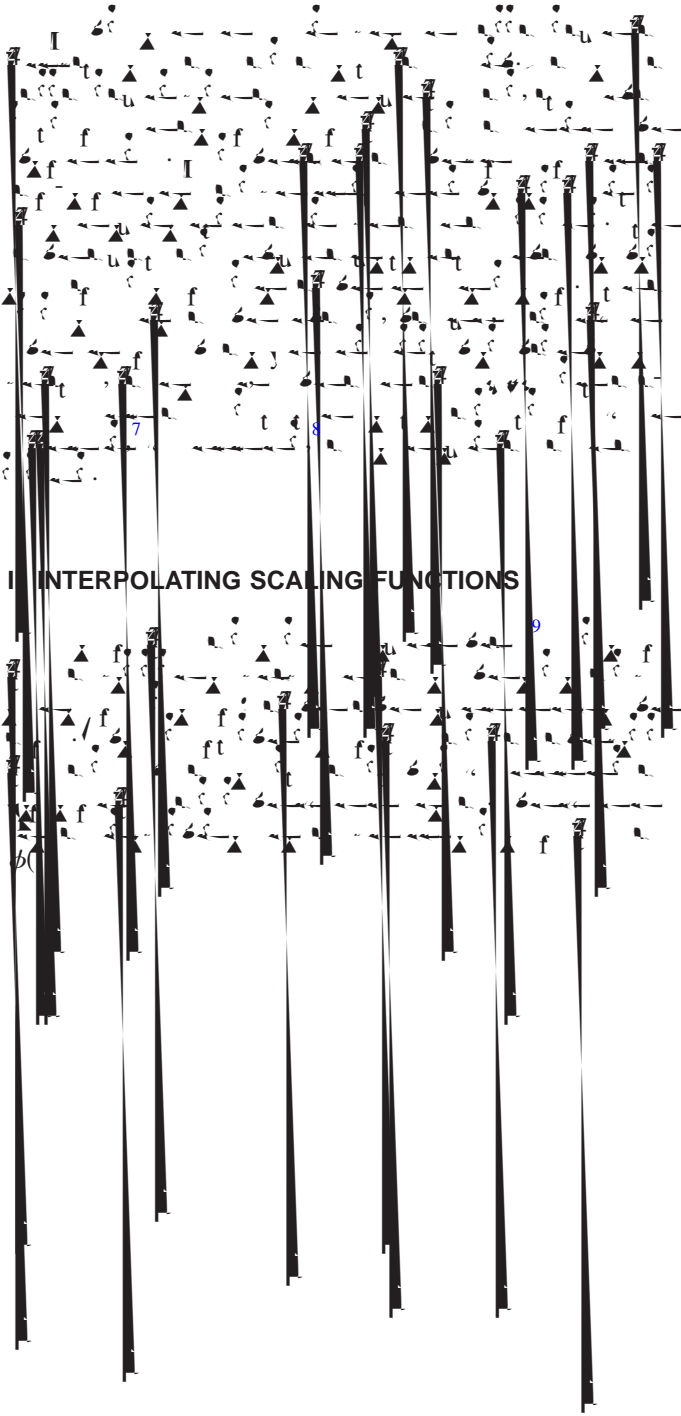
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( $\Delta$ -15  $\Delta$  2006;  $\Delta$ -13  $\Delta$  2006;  $\Delta$ -17  $\Delta$  2006)





INTERPOLATING SCALING FUNCTIONS

$$= \left( \mathbf{r}_{i_1 i_2 i_3} \right), \quad \mathbf{r}_{i_1 i_2 i_3} = (i_1, i_2, i_3) \quad i_1 i_2 i_3$$

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A musical score system consisting of four staves. The notation includes various note values, rests, and dynamic markings such as 'f' and 'u'. The notes are primarily eighth and sixteenth notes, with some quarter notes. The staves are connected by a brace on the left side.

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**APPENDIX: PROOF OF EQ. (6)**

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

$$\sum_{s_1+s_2+s_3} \rho_{s_1+s_2+s_3} = \int \mathbf{r}^1 \mathbf{r}^2 \mathbf{r}^3 \rho(\mathbf{r}) \quad 0 \leq s_1, s_2, s_3 < \dots \quad (2)$$

$$\phi(\mathbf{r}_{s_i}) = \delta_{s_i, 0, \dots, 1} \quad (3)$$

$$\int \phi(\mathbf{r}_{s_i}) = \int \phi(\mathbf{r}_{s_1}) \phi(\mathbf{r}_{s_2}) \phi(\mathbf{r}_{s_3}) = \int \phi(\mathbf{r}_{s_1}) \sum_{s_2+s_3} \dots = \dots \quad (4)$$