



Distance between adjacent samples

$$\delta_i = t_{i+1} - t_i$$

Accumulated transmittance along the ray
from near to far depth

$$T_i = \exp\left(-\sum_{j=1}^{i-1} \sigma_j \delta_j\right)$$

Weight of each sample ray for alpha composition

$$w_i = T_i(1 - \exp(-\sigma_i \delta_i))$$

Final color of a ray

$$C(r) = \sum^N w_i c_i$$

NERF

Final semantic feature of a ray

$$F(r) = \sum^N w_i F_i$$

A naive extension to predict semantic