

Mathematical typesetting with Cochineal

First some large operators both in text: $\iiint_Q f(x, y, z) dx dy dz$ and $\prod_{\gamma \in \Gamma_{\tilde{C}}} \partial(\tilde{X}_\gamma)$; and also on display:

$$\begin{aligned} \iiint_Q f(w, x, y, z) dw dx dy dz &\leq \oint_{\partial Q} f' \left(\max \left\{ \frac{\|w\|}{|w^2 + x^2|}; \frac{\|z\|}{|y^2 + z^2|}; \frac{\|w \oplus z\|}{\|x \oplus y\|} \right\} \right) \\ &\approx \bigcup_{Q \in \bar{Q}} \left[f^* \left(\frac{f(Q(t))}{\sqrt{1-t^2}} \right) \right]_{t=\alpha}^{t=\beta} - (\Delta + \nu - \nu)^3 \end{aligned} \quad (1)$$

For x in the open interval $] -1, 1[$ the infinite sum in Equation (2) is convergent; however, this does not hold throughout the closed interval $[-1, 1]$.

$$(1-x)^{-k} = 1 + \sum_{j=1}^{\infty} (-1)^j \binom{k}{j} x^j \quad \text{for } k \in \mathbb{N}; k \neq 0. \quad (2)$$