

Smale@Coxeter: From Vision to Vaccines: The Unifying Power of Mathematics

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3:30 PM

X - a finite set

A "kernel" or a "reproducing kernel" on X is a map $K: X \times X \rightarrow \mathbb{R}_{\geq 0}$, s.t.

$$K(x, y) = K(y, x)$$

& K is a "positive definite" matrix.

Define

$$d(x, y)^2 = \|K(x, \cdot) - K(y, \cdot)\|_{L^2(X, \text{counting measure})}^2$$

... what on Earth is he talking about?