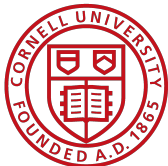# Presentation title here

## Subtitle here (e.g., name of conference)

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# Mercer's theorem

Eigendecomposition of a kernel

A continuous function $K : ([0,1] \times [0,1]) \to \mathbb{R}$ is a *kernel* if it is:
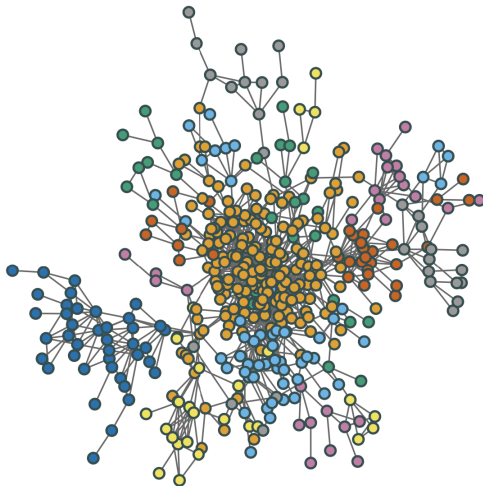
- Symmetric: $K(a,b) = K(b,a)$
- Positive semi-definite:

$$\sum_{i=1}^{n} \sum_{j=1}^{n} K(x_i, x_j) c_i c_j \geq 0$$

for all $x_1, ..., x_n \in [0,1]$ and $c_1, ..., c_n \in \mathbb{R}$

Now define an integral operator on $\mathcal{L}^2[0,1]$ using $K$:

$$(T_K f)(x) = \int_0^1 K(x,s) f(s) \, \mathrm{d}s$$

# Example image

# References

Paper 1 Title.
Paper 1 Authors.
*Journal Name* Edition, Year.

Paper 2 Title.
Paper 2 Authors.
arXiv:1234.56789.

Thank you for listening!

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