Calculating the Radial Basis Kernel

0 points possible (ungraded)
Recall from the video above that the **radial basis kernel** K is given by

$$K(x, x') = e^{-\frac{1}{2}||x-x'||^2}$$

Let

$$\begin{aligned} x &= [1,0,0]^T \\ x' &= [0,1,0]^T. \end{aligned}$$

Compute the radial basis kernel $K(x, x')$.

- [ ] $\frac{\sqrt{2}}{2}$
- [x] e^{-1} ✔
- [ ] $e^{-\frac{1}{2}}$
- [ ] $e^{\frac{\sqrt{2}}{2}}$

✔

Solution:

$K(x, x') = e^{-\frac{1}{2}||x-x'||^2} = e^{-\frac{1}{2}(2)} = e^{-1}.$

Submit You have used 1 of 2 attempts

Answers are displayed within the problem

Discussion

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