Course XYZ Problem Bank

Course XYZ Fall 2020

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1 Rotations

Problem 1. Rodriguez' Formula

Answer the following questions:

(a) Using Rodriguez' rotation formula, write down an expression for $e^{\hat{\omega}}$ where ω is a given vector in $\mathbb{R}^3$.

(b) Write down an expression for a rotation matrix implementing a rotation by θ radians counterclockwise about an axis in the direction of $\omega \in \mathbb{R}^3$.