# NMU Math \& CS Department <br> Problem of the Month, November 2 O 22 

Suppose that $X \in \mathbb{C}$ is a number such that:

$$
X^{3}+\frac{1}{X^{3}}=\sqrt{2} .
$$

Find the value of the expression:

$$
X^{2022}+\frac{1}{X^{2022}} .
$$

