## 2023-02-15

For $0<\delta<1$, consider the symmetric positive definite matrix

$$
A=\left[\begin{array}{cc}
1 & 1-\delta \\
1-\delta & 1
\end{array}\right]
$$

What is the 2 -norm condition number of $A$ ? Note that such matrices occur regularly as submatrices of $\Phi_{X X}$ in the project...

