

## REAL MATRIX EXPONENTIAL

## **Definition**

The matrix exponential of a real matrix  $M \in \mathbb{R}^{n \times n}$  is the matrix

 $I + M + \frac{M^2}{2!} + \frac{M^3}{3!} + \cdots$ 

It is a (nontrivial) fact that this matrix exponential converges for any M.

