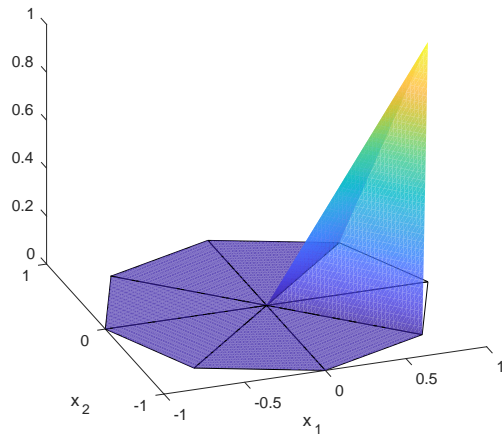


# Numerik partieller Differentialgleichungen

## Some global shape functions

Global shape function #1 of Linear Lagrange Element



Global shape function #9 of Linear Lagrange Element

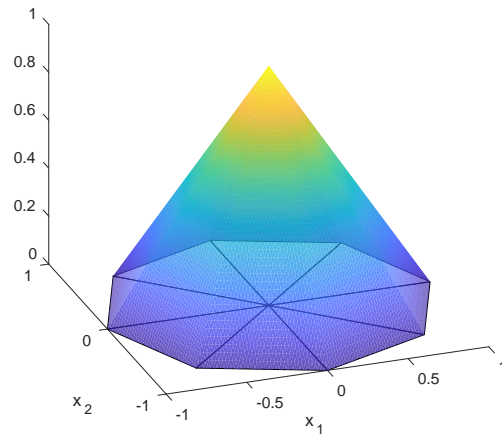
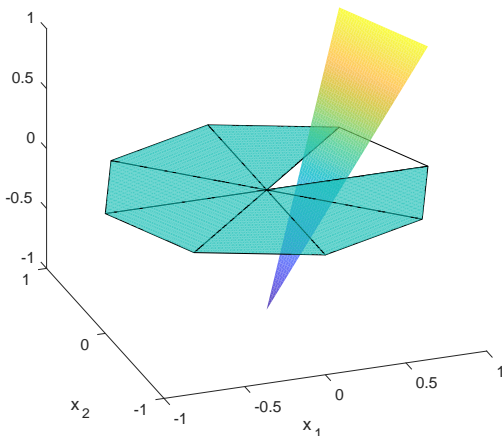


Figure 1: Some global shape functions for the  $C^0$  conforming  $\mathbb{P}_1$  finite element space

Global shape function #1 of Linear Crouzeix-Raviart Element



Global shape function #6 of Linear Crouzeix-Raviart Element

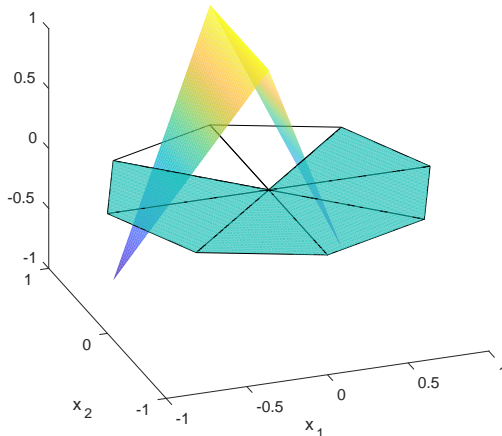
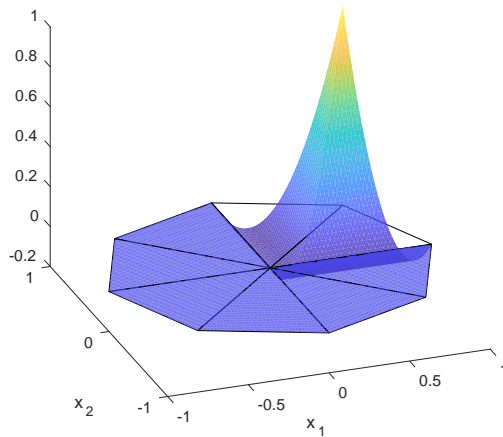


Figure 2: Some global shape functions for the Crouzeix-Raviart element finite element space (not  $C^0$  conforming)

Global shape function #5 of Quadratic Lagrange Element



Global shape function #22 of Quadratic Lagrange Element

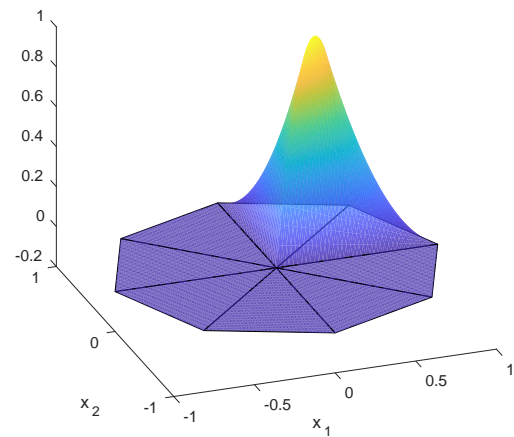
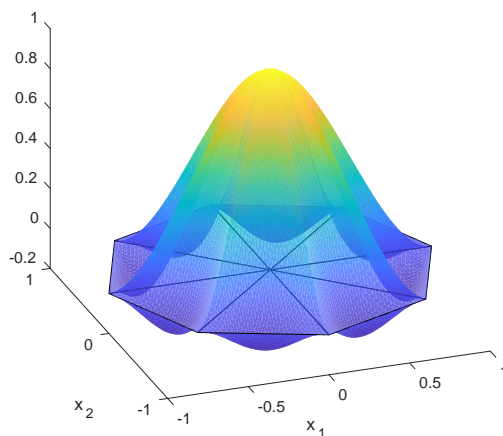
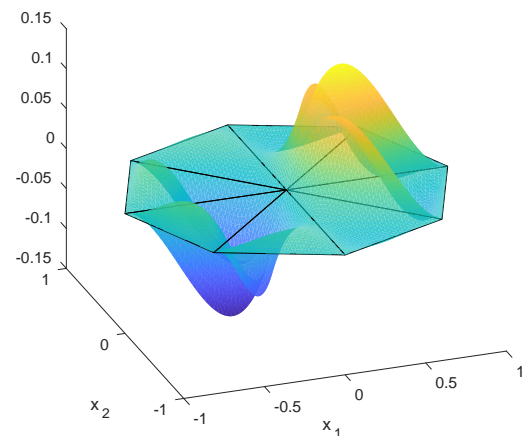


Figure 3: Some global shape functions for the  $C^0$  conforming  $\mathbb{P}_2$  finite element space

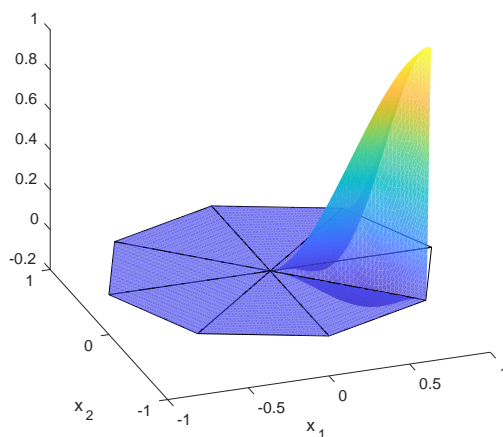
Global shape function #25 of Cubic Hermite Element



Global shape function #26 of Cubic Hermite Element



Global shape function #1 of Cubic Hermite Element



Global shape function #28 of Cubic Hermite Element

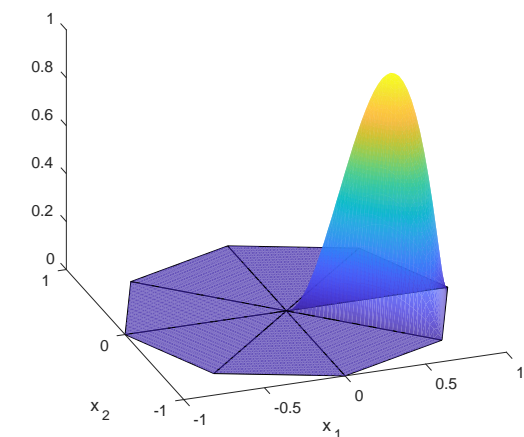


Figure 4: Some global shape functions for the  $C^0$  conforming cubic Hermite finite element space