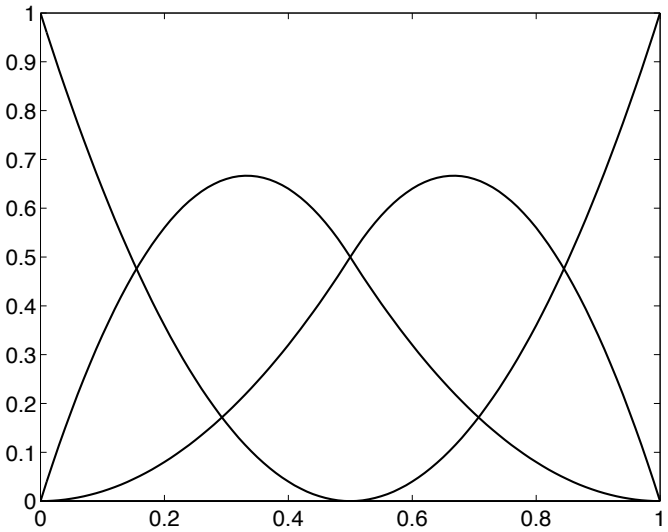
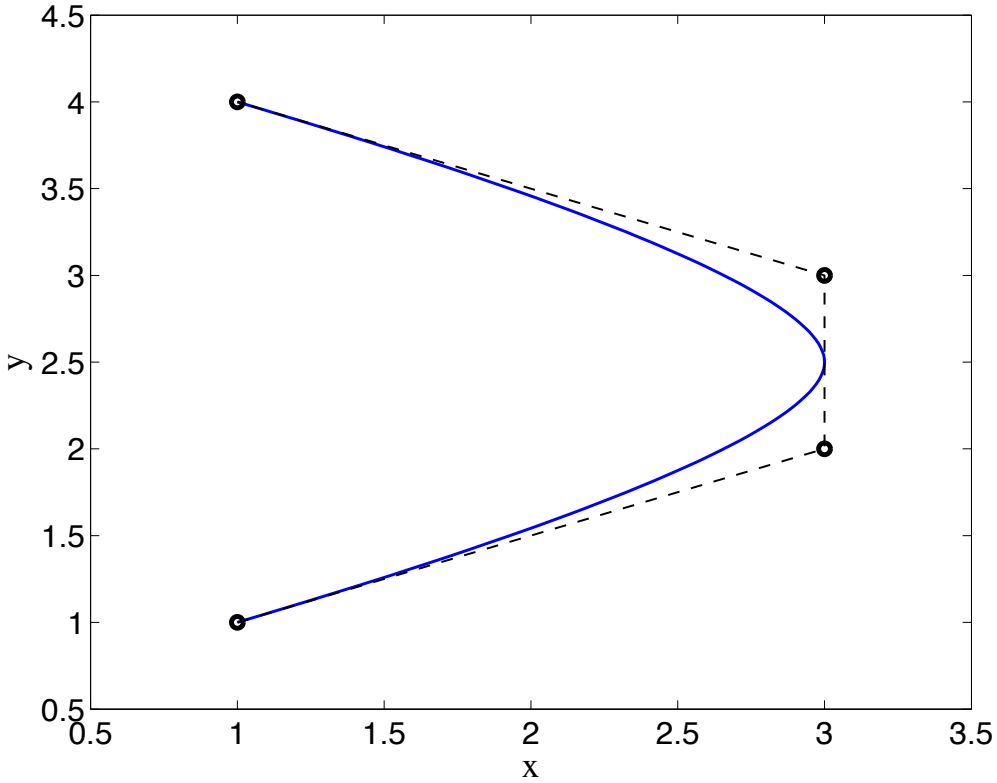
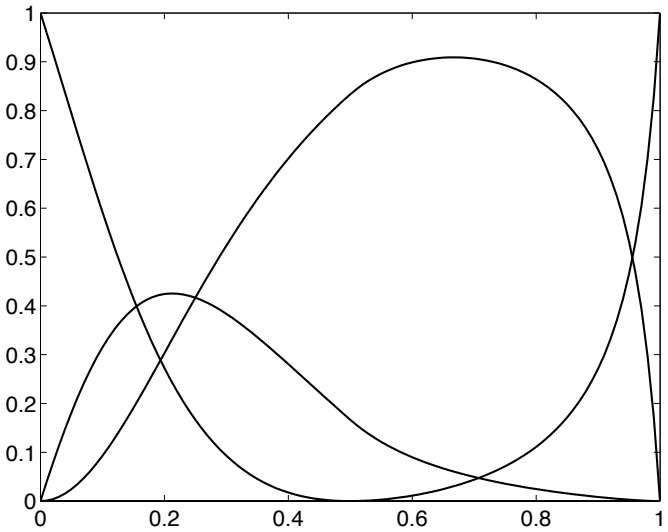
Rational B-splines

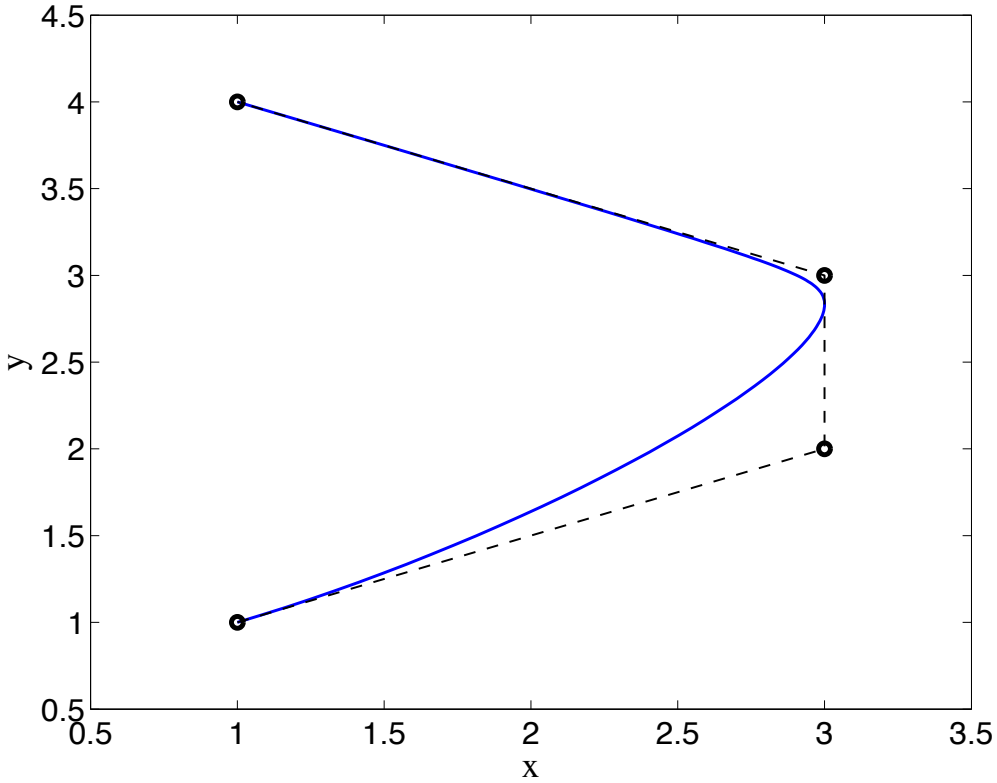
$w_3 = 1$


1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1

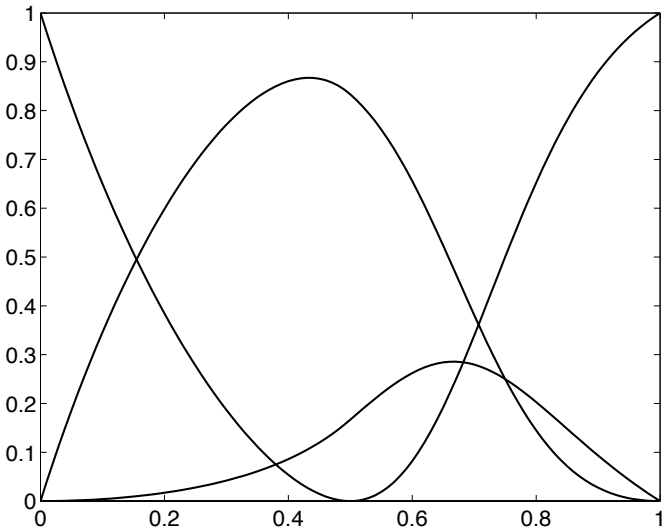

4.5
4
3.5
3
2.5
2
1.5
1
0.5
y
0.5
1
1.5
2
2.5
3
3.5
x

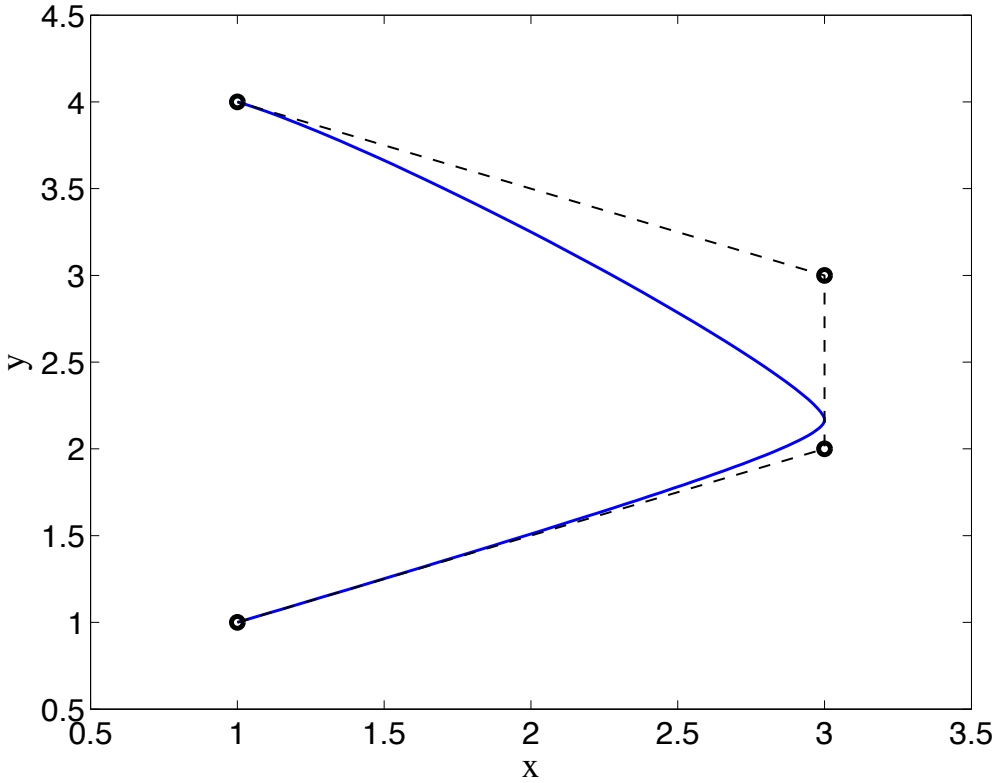
$w_3 = 5$

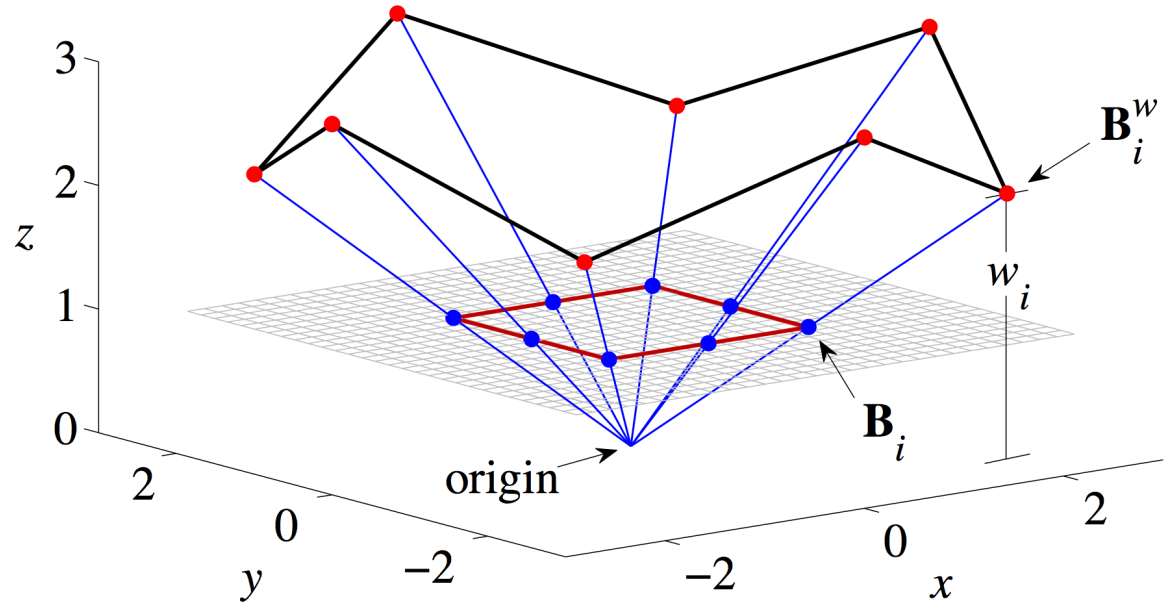

1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1


4.5
4
3.5
3
2.5
2
1.5
1
0.5
y
0.5
1
1.5
2
2.5
3
3.5
x

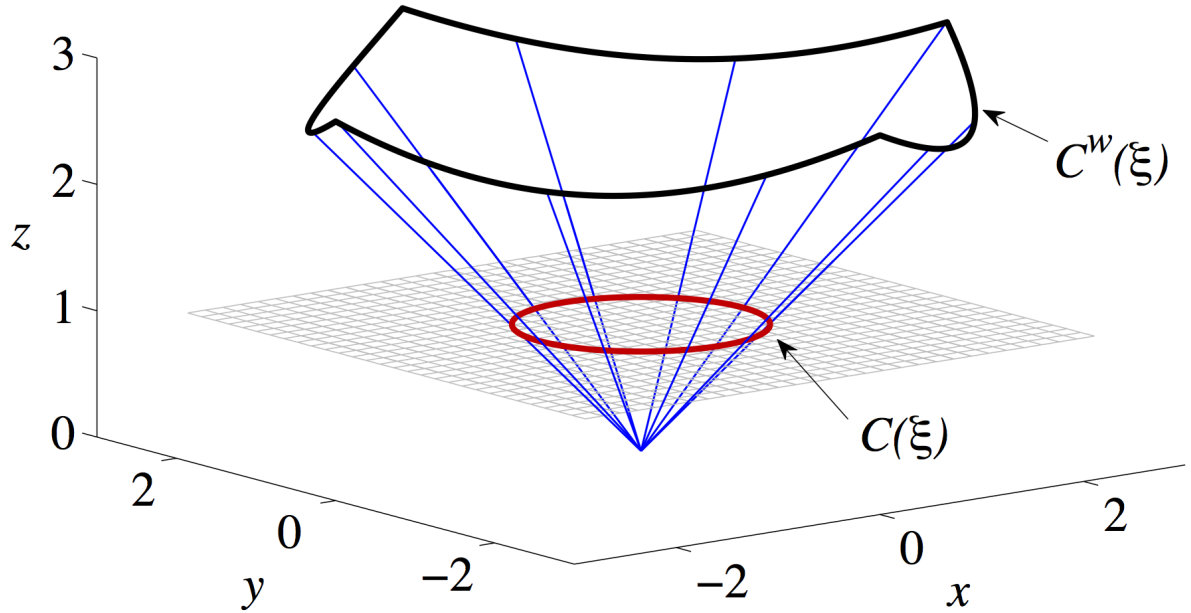
$w_3 = 1/5$


1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1

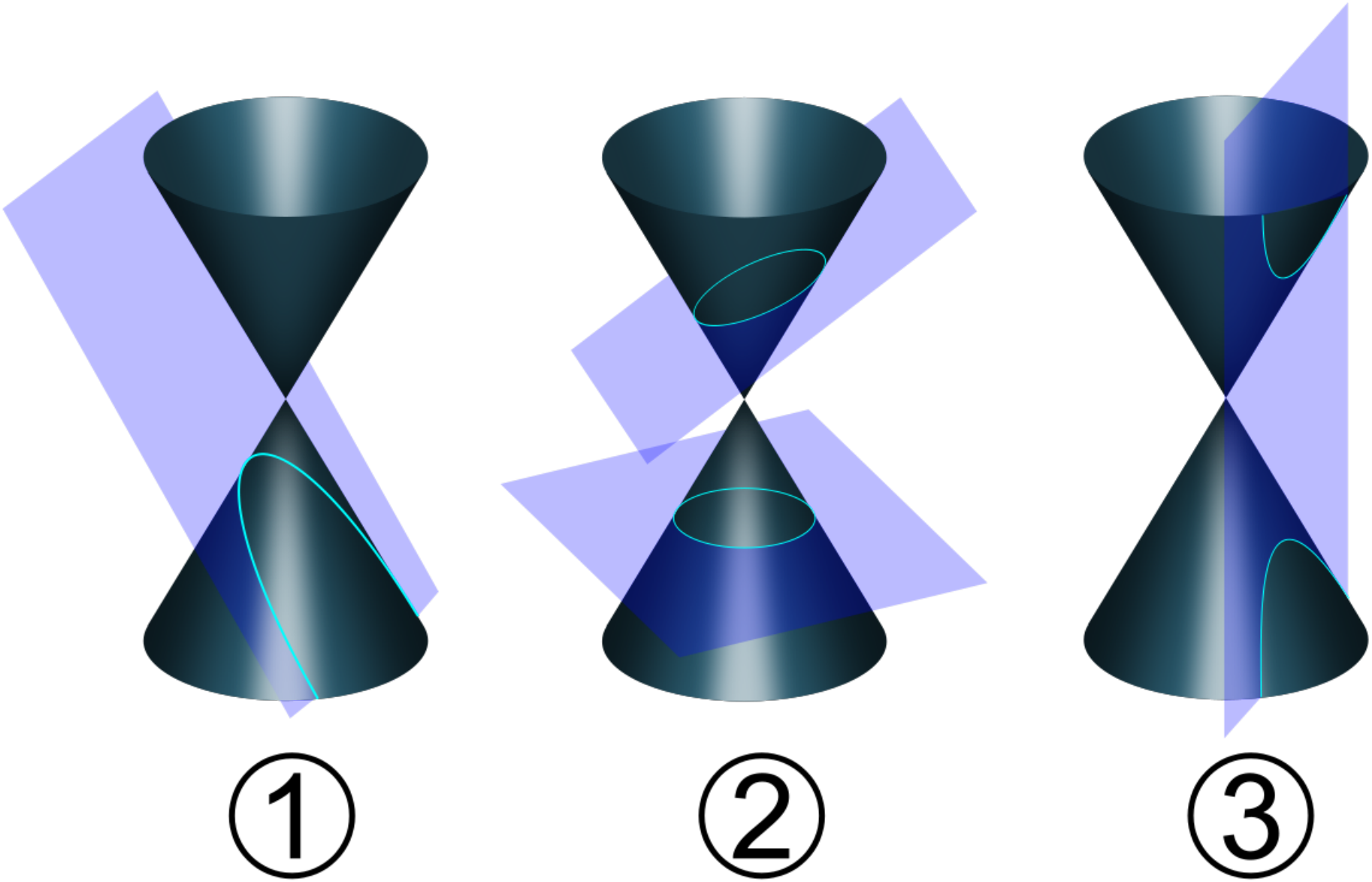

4.5
4
3.5
3
2.5
2
1.5
1
0.5
y
0.5
1
1.5
2
2.5
3
3.5
x

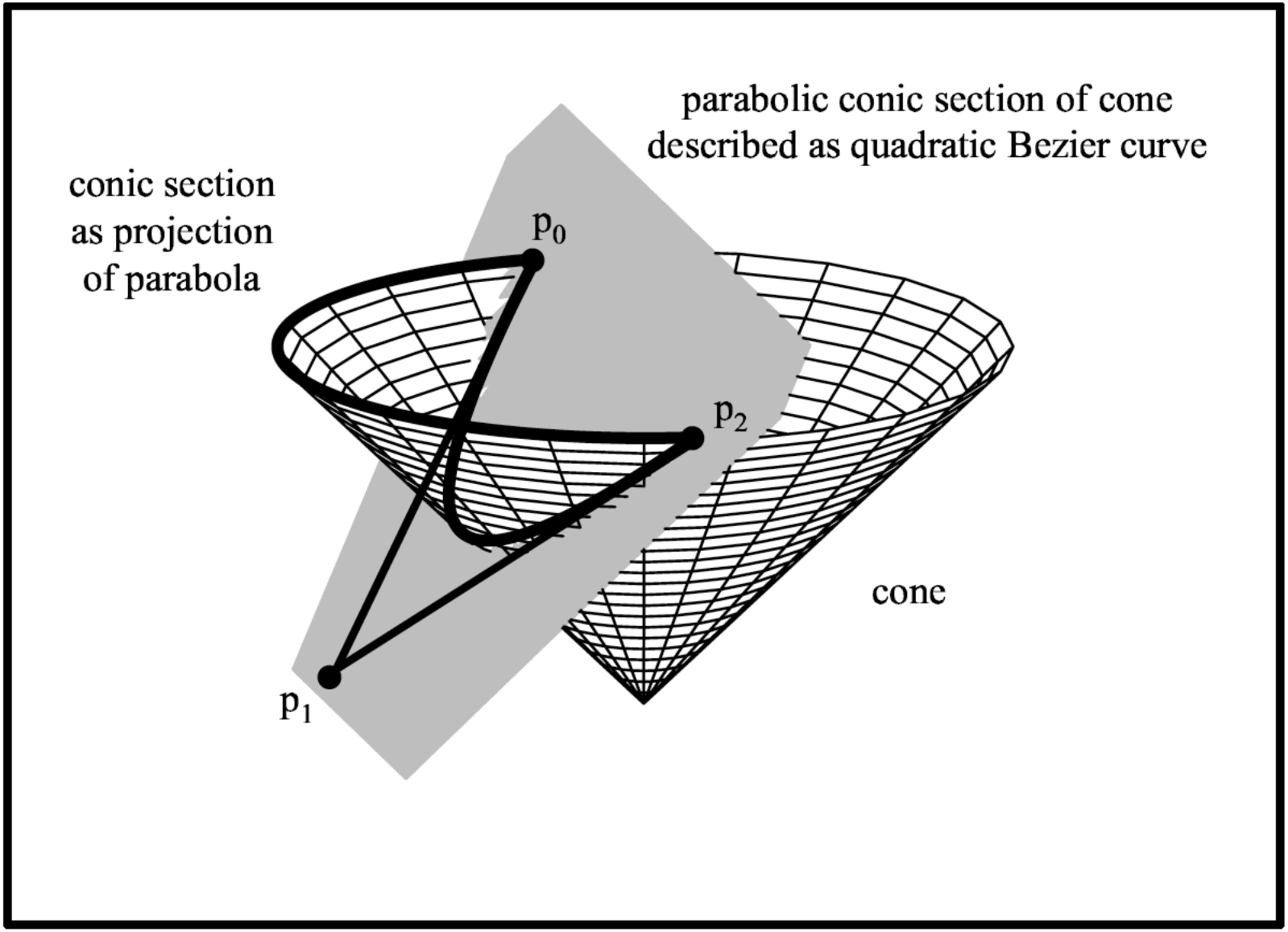


(a) Control polygons



(b) Curves


①
②
③


parabolic conic section of cone
described as quadratic Bezier curve
conic section
as projection
of parabola
p_0
p_2
p_1
cone