



NC

(free form)

Matlab

Taheri_j@yahoo.com

CNC

B-Spline

Matlab

B-Spline-

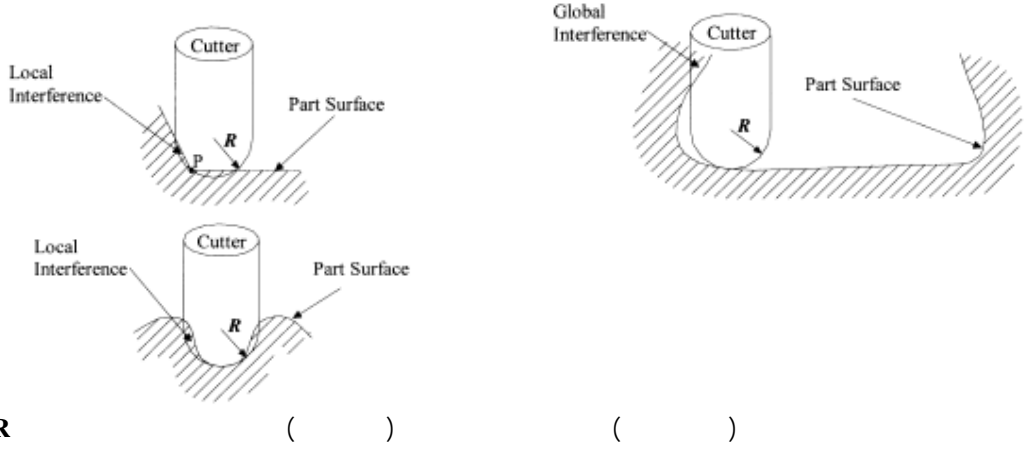
()

()

()

()

[1]



R () ()

- (protrusion interference)
- (overlapping interference)
- (boundary collision interference)

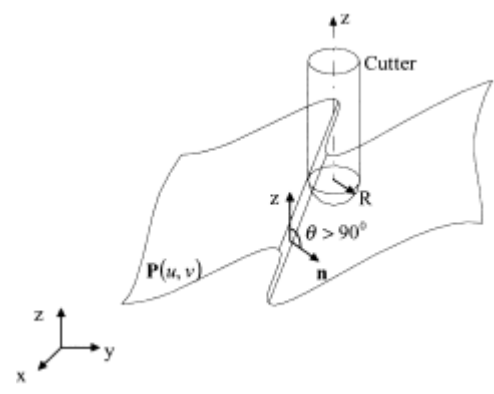
[2] Gaal .
()

[3]Tseng .
(Bezier)

Matlab

(2)

۹۰





سازمان فناوری اطلاعات
سازمان فناوری اطلاعات



انجمن مهندسی
ساخت و تولید ایران



1



کتابخانه مرکزی
موسسه تحقیقاتی و فناوری
کتابخانه مرکزی

۹۰

$P(u,v)$:

R

grid

:

grid

grid

grid

B-Spline

peaks

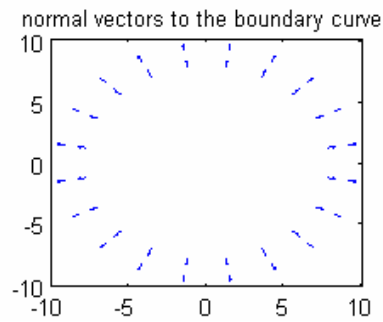
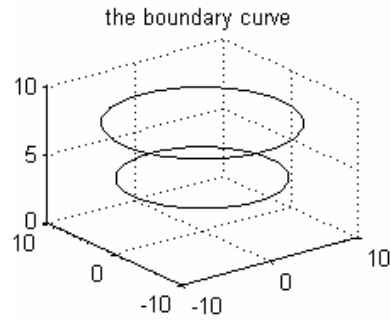
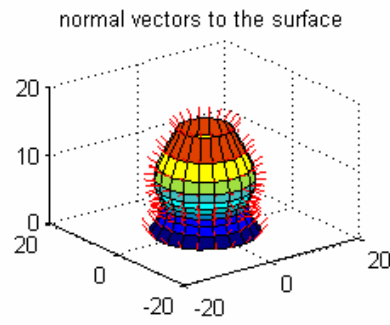
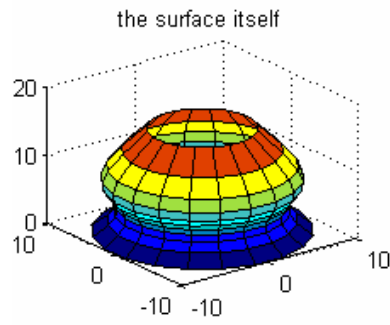
(۴) (۳)

()

()

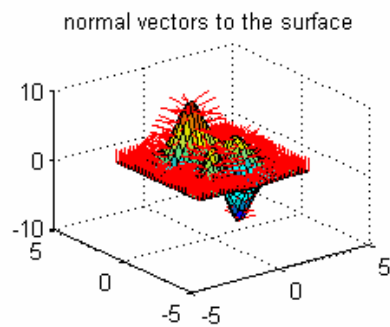
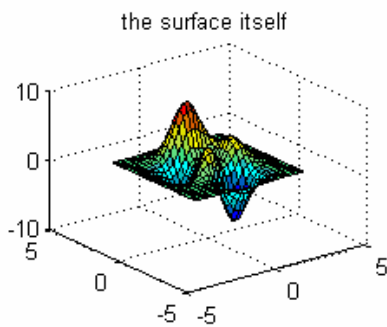
()

(CAPP)



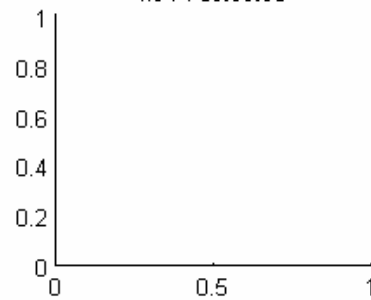
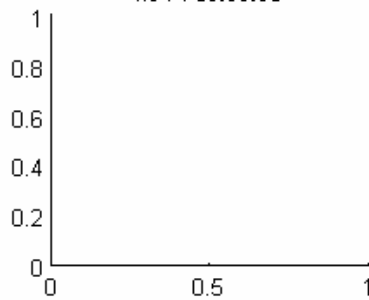
B-Spline

3



no PI detected

no PI detected



B-Spline



دانشگاه صنعتی شاهرود
سازمان مهندسی



انجمن مهندسی
ساخت و تولید ایران

1



دانشگاه شریف
موسسه تحقیقاتی و توسعه
مکانیک



[۲] Gaal B, Varady T. Experiences and further development of the FFS (free-form shapes) CAD/CAM system. Robot. Comput. Integrated Manuf. 1981;2(2):186–197.

[3] Tseng YJ, Joshi S. Determining feasible tool-approach direction for machining Bezier curves and surface. Computer-Aided Design 1991;23(5):367–379.

[4] Chang CH, Malakoff MA. NC machine programming and software Design. New York: Prentice Hall, 1989