



Computer Graphics II
Geometric Modelling
Homework

Due:

XXX

Send email with archive containing pdf report and program sources

Email object: [MOSIG] CGII

Objective:

- Implement basic curve subdivision schemes
 - Illustrate their convergence
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- 1) Implement for a given closed polygon the following curve subdivision scheme:
 - a. Chaikin
 - b. Corner cutting (with parameters a and b)
 - c. 4-point scheme
 - d. Generalized 4-point scheme
 - e. Uniform splines of degree 3
 - 2) Compute a distance between a given polygon and its subdivision
 - 3) Compute the angles at each vertices of a closed polygon
 - 4) Write a short report (4 to 5 pages including illustrations), with illustration of the implemented subdivision schemes, together with plots showing the convergence of the scheme and the smoothness (C_0 , C_1 or C_2) of the limit