

CONTENTS

Contributors	xi
Introduction to the basic mathematical tools by M.A. Sabin and R.R. Martin	1
Parametric curves and surfaces as used in computer aided design by M.J. Pratt	19
Improvements to parametric bicubic surface patches by D.P. Sturge	47
A circle diagram for local differential geometry by A.W. Nutbourne	59
Elementary exposition of differential forms by L.M. Woodward	73
Differential forms in the theory of surfaces by L.M. Woodward	95
Surface/surface intersection problems by M.J. Pratt and A.D. Geisow	117
Defining and designing curved flexible tensile surface structures by C.J.K. Williams	143
Gaussian curvature and shell structures by C.R. Calladine	179
Multivariate spline algorithms by W. Boehm	197
N-sided surface patches by J.A. Gregory	217
The solution of a frame matching equation by A.W. Nutbourne	233

Cyclide surfaces in computer aided design by R.R. Martin, J. de Pont and T.J. Sharrock	253
Recursive Division by M.A. Sabin	269