Advanced Topics in Geometry B1 (MTH.B406)

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Student's comments

- The calculations became too complicated and I could not solve all the problems.
  Comment: Sorry.

Q and A

The asymptotic Chebyshev net:

$$ds^2 = d\xi^2 + 2\cos\theta\, d\xi\, d\eta + d\eta^2, \qquad II = k\sin\theta\, d\xi\, d\eta.$$

Q: Why do we assume $0 < \theta(\xi, \eta) < \pi$?

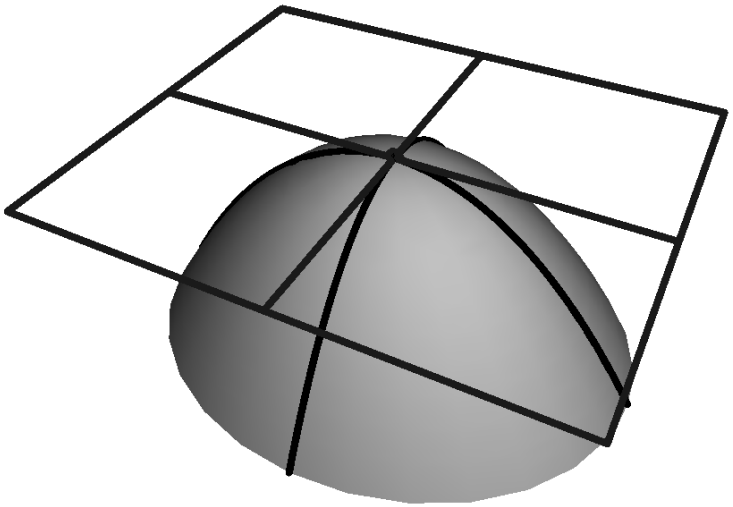
Q and A

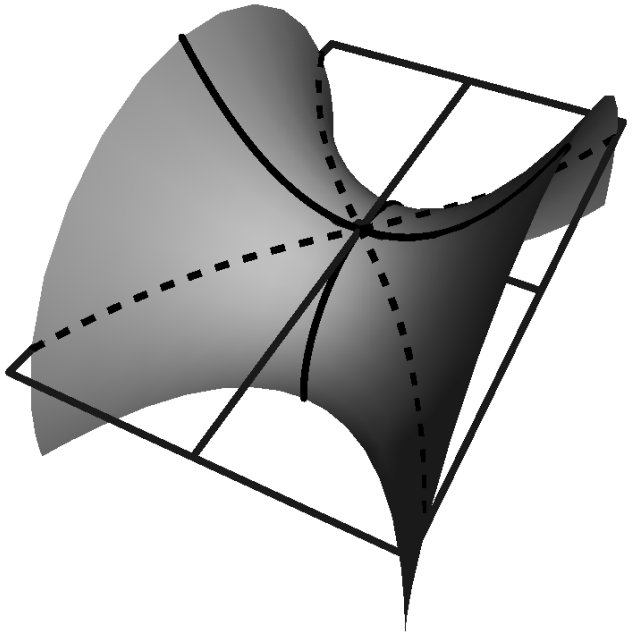
The asymptotic Chebyshev net:

$$ds^2 = d\xi^2 + 2\cos\theta\, d\xi\, d\eta + d\eta^2, \qquad II = k\sin\theta\, d\xi\, d\eta.$$

Q: I think I don't really understand why there is mention of asymptoticism. Why are the name introduced in this lecture labelled "asymptotic" parameter?

Asymtotic directions





Asymtotic parameters