962-30-979 **Philip L Bowers*** (bowers@math.fsu.edu). *Computing conformal mappings of curved surfaces.* Preliminary report.

We survey some of the practical computational issues that arise from our work with an interdisciplinary team of mathematicians and neuroscientists involved in an effort to build a reliable tool for approximating conformal flat mappings of the human brain. Of course, our method actually works to approximate conformal mappings of arbitrary curved surfaces as well as conformally correct shapes of conformal tilings. Circle packings are used to provide the approximations. This is joint work with a team that includes Ken Stephenson, DeWitt Sumners, and Monica Hurdal. (Received September 29, 2000)