

UFSCar

DEPARTAMENTO DE MATEMÁTICA

COLÓQUIO

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Falará sobre:

**A correct programme to determine the interior
of any discrete closed planar curve**

Resumo. Region filling is one of the most important and fundamental operations in computer graphics and image processing. Many algorithm developments and implementations are based on the models of the Euclidean geometry, which are then translated into computational models moving carelessly from the continuous to the finite discrete space of the computer. The consequences of this approach is that most implementations of region filling algorithms fail when tested for challenging degenerate and also for nearly degenerate regions. In this paper we present a correct procedure that works out for any discrete closed curve. It finds all possible interior points, which are then displayed and stored in a locating matrix. Namely, we have a filling *and *locating procedure, and it can be used for both computer graphics and image processing applications (Joint work with Antonio Elias Fabris - IME/USP).

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