



The Abdus Salam  
International Centre  
for Theoretical Physics



BASIC NOTIONS SEMINAR

# Whitney and his umbrella

Ton Marar

Universidade de São Paulo, ICMC  
São Carlos, Brazil

Thursday 2 May

16:00

Luigi Stasi seminar room

## Abstract:

Hassler Whitney once said: *The singularities of a general smooth mapping from a surface into  $R^3$  may be quite wild. But a slight alteration of the map will reduce the singularities to a single type.*

The new map is called *semiregular* and the tame singularity is called a *Whitney umbrella*.

We call the images of semiregular maps *singular surfaces*. We explore the interplay between a reduced defining equation  $F(X,Y,Z)=0$  and a parametrization  $\varphi : R^2 \rightarrow R^3$  of a singular surface.

Unfolding  
Singularidade H. de David Mond

Ton Marar

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