

Autonomous and Mobile Robotics

Prof. Giuseppe Oriolo

Configuration Space

companion slides for the blackboard lecture

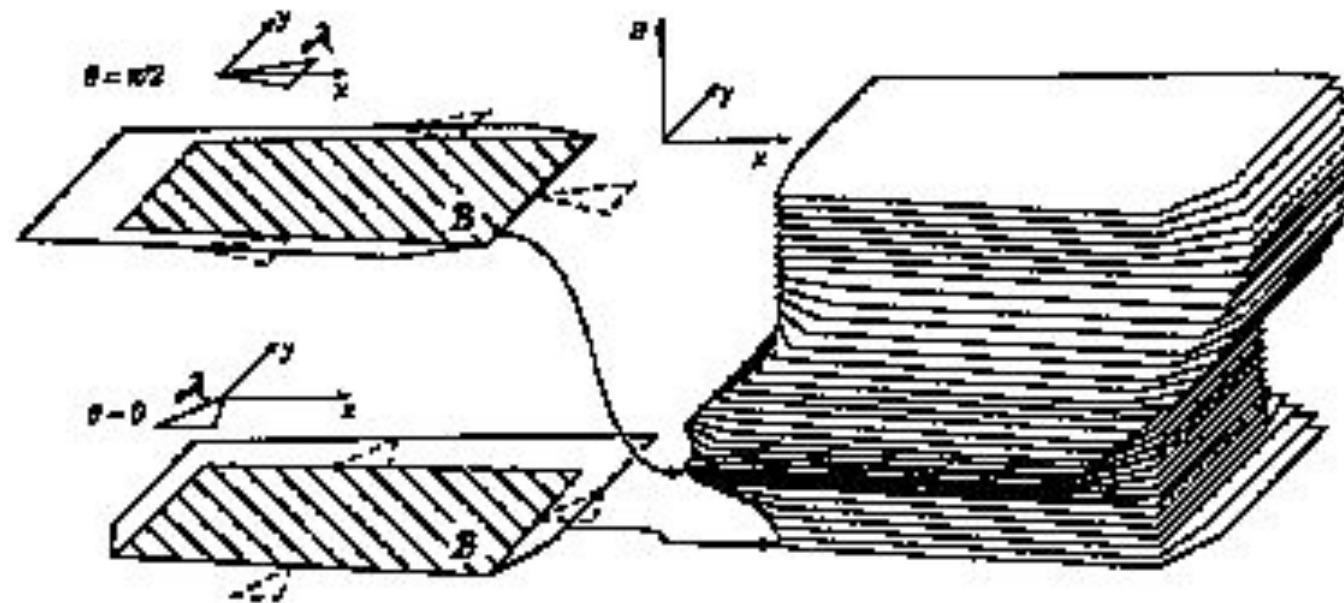
DIPARTIMENTO DI INGEGNERIA INFORMATICA
AUTOMATICA E GESTIONALE ANTONIO RUBERTI



SAPIENZA
UNIVERSITÀ DI ROMA

C-obstacles when rotations are involved

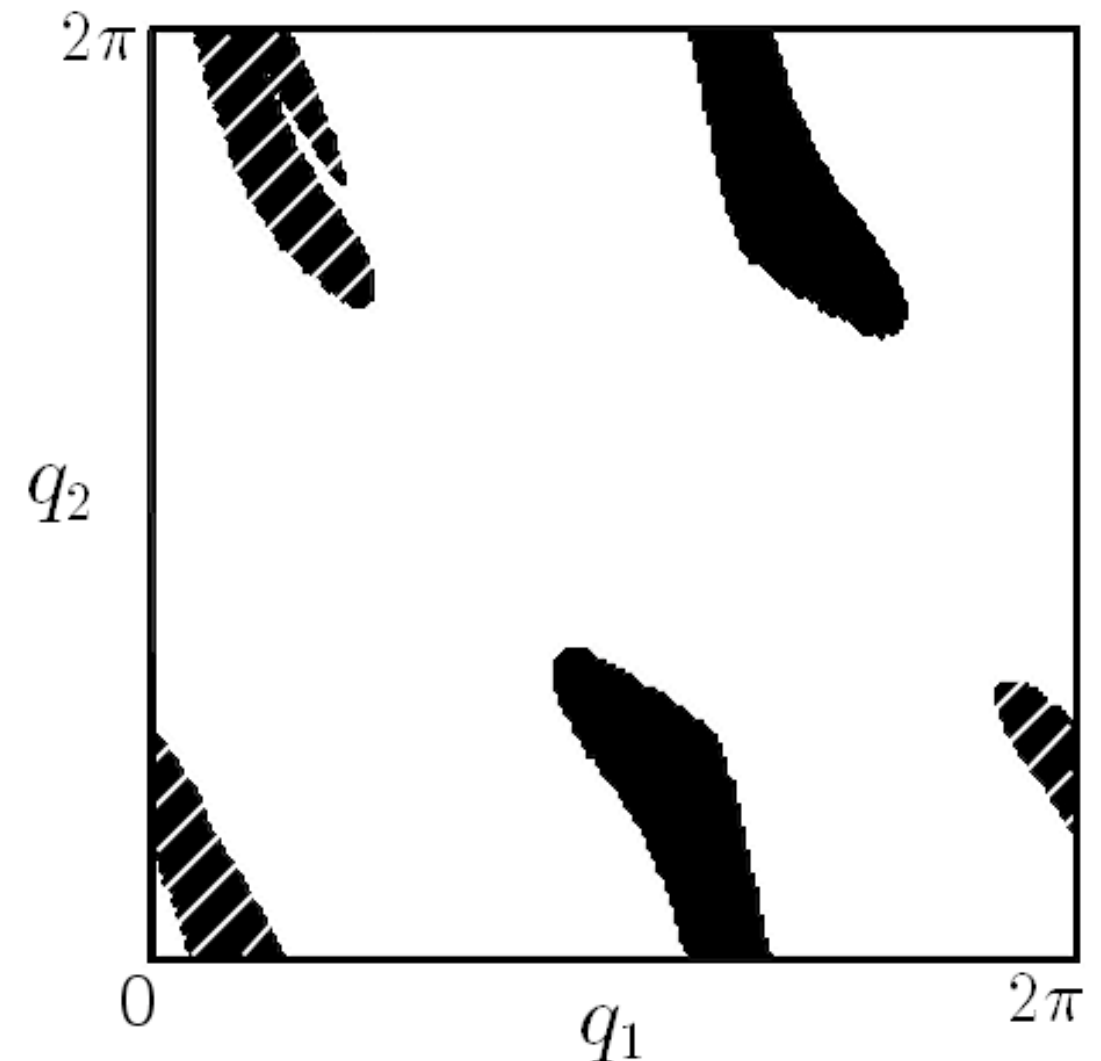
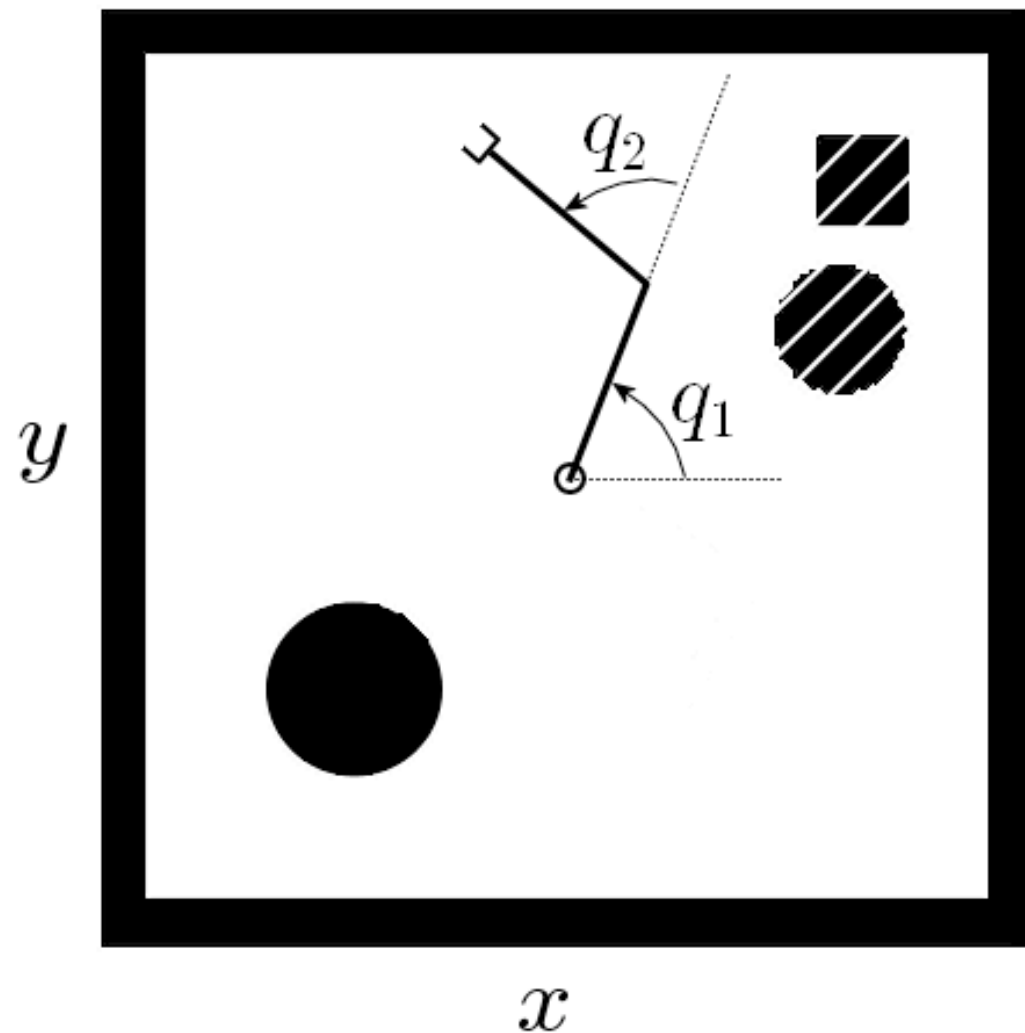
for a polygonal robot free to translate and rotate on the plane



“grow and stack”

C-obstacles when rotations are involved

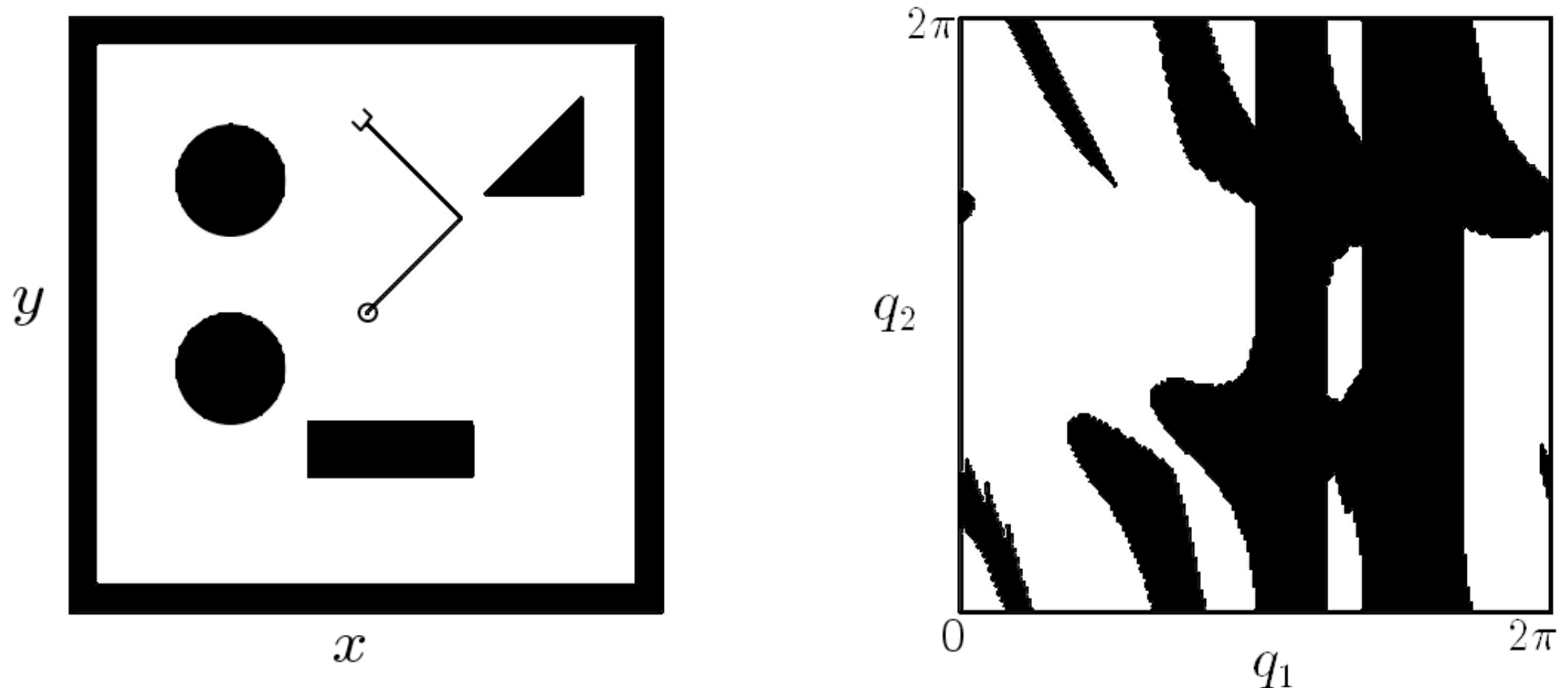
for a 2R planar manipulator, scene I



disjoint workspace obstacles may **merge** in C-space

C-obstacles when rotations are involved

for a 2R planar manipulator, scene 2



the free configuration space may be **disconnected**