Advanced Telemanipulation Applications

In this seminar after a brief (biased) state of the art of the teleoperation, important aspects of robotics surgery such as force feedback, organ models, transparency, stability and haptic device features are examined. Then, autonomy in teleoperation will be presented, as a set of improvements over standard teleoperation, and a possible approach to the teleoperation system verification, named human perception experiments, will be described. These concepts will be put in the context of the European Project AccuRobAs, which has just started. Within the project, we hope to apply these ideas of advanced teleoperation to develop a new concept of surgical teleoperation system.