

## **Analysis and control of 1-dof telemanipulation systems**

Analyze and simulate the control schemes proposed in the reference material on a 1-dof telemanipulation system.

Reference material:

[1] P. Arcara and C. Melchiorri, “Control schemes for teleoperation with time delay: A comparative study,” *Robotics and Autonomous Systems*, vol. 38, pp. 49-64, 2002.

[2] C. Melchiorri, “Robotic Telemanipulation: General Aspects and Control Aspects,” Slides from the Euron/GeoPleX Summetr School, Bertinoro, Italy, 2003  
(see also [http://www-lar.deis.unibo.it/euron-geoplex-sumsch/files/lectures\\_1/Melchiorri/Melchiorri\\_01\\_Teleman.pdf](http://www-lar.deis.unibo.it/euron-geoplex-sumsch/files/lectures_1/Melchiorri/Melchiorri_01_Teleman.pdf))

[3] C. Melchiorri, “Robotic telemanipulation systems: An overview on control aspects,” *Proc. 7th IFAC Symp. on Robot Control*, Wrocław, Poland, September 2003.

[4] S. Sirouspour and A. Shahdi, “Model predictive control for transparent teleoperation under communication time delay,” *IEEE Trans. on Robotics*, vol. 22, no. 6, pp. 1131-1145, 2006.