

Questions of Electric Drives for Automation – Prof. Luca Zarri (AY 2015/2016)

- 1) Clark and Park transformations, space vectors
- 2) Inner PM brushless machines
- 3) Single phase inverter and modulation strategies
- 4) Three phase inverter and modulation strategies with space vectors
- 5) SVM modulation
- 6) Induction motor
- 7) Field weakening for PM brushless machines
- 8) Field weakening for induction machines
- 9) PWM rectifiers and back-to-back converter
- 10) UPS
- 11) Active filters
- 12) Current control with PI
- 13) Current control with dead-beat
- 14) Resonant and repetitive controllers
- 15) Current and voltage control loops of an UPS
- 16) Advanced schemes for motor control
- 17) Elastic systems
- 18) Electric and hybrid vehicles