New proofs of known optimization tools

M. Galewski

Institute of Mathematics, Lodz University of Technology

During my talk I will present two proofs of very well-known results, namely the Weierstrass Theorem and the Lagrange Multiplier Rule. Concerning the Weierstrass Theorem, the proof follows the lines of the proofs of the Browder-Minty Theorem, namely it is achieved via finite dimensional approximations. As for the proof of the Lagrange Multiplier Rule we use the penalty method and the Weierstrass Theorem to get the result in a special case.