Sean Lawton\* (slawton@math.ist.utl.pt), University of Maryland, Department of Mathematics, College Park, MD 20742, and Carlos Florentino (cfloren@math.ist.utl.pt), Lisbon, Portugal. The topology of the moduli of free group representations.

Let G be a complex affine reductive group and let K be a maximal compact subgroup. We have recently proved that the moduli space of representations  $\text{Hom}(F_r, G)/\!\!/ G$  deformation retracts to the quotient space  $\text{Hom}(F_r, K)/K$  for any rank r free group  $F_r$ . If  $F_r$  is replaced by other finitely generated groups the theorem may be false, but not always. In this talk we discuss this theorem and some examples. (Received September 10, 2008)