I will introduce the PE-character variety of a knot manifold, which consists of characters that restrict to elliptic characters on the peripheral subgroup. Techniques for computing it, which arise from related methods for computing A-polynomials, will be described. The PE-character variety contains the $SU(2)$ character variety as well as parts of the $SL(2, \mathbb{R})$ character variety. Unlike the $SU(2)$ character variety, it is a union of immersed closed curves in the Clifford torus in $\mathbb{C}^* \times \mathbb{C}^*$. This fact clarifies some of the connections with classical knot invariants. (Received February 24, 2015)