Abstract:

Let \( f : C' \rightarrow C \) be a cyclic cover of smooth projective curves. Its Prym variety is by definition the complement of the pullback of the Jacobian of \( C \) in the Jacobian of \( C' \). It is an abelian variety with a polarization depending on the genus of \( C \), the degree of \( f \) and the ramification type of the covering \( f \). This gives a map from the moduli space of coverings of this type into the moduli space of abelian varieties of the corresponding type with endomorphism structure induced by the automorphism given by \( f \), called Prym map. In many cases the Prym map is generically injective. Particularly interesting are the cases where the Prym map is finite and dominant. In this talk these cases will be worked out for covers of degree a prime number and twice an odd prime. In some cases the degree of the Prym map is determined. This is joint work with Angela Ortega.

Special Note:
There will be a pre-talk from 3:30 to 4:00 for graduate students and postdocs.