**FRED TING**, Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1 *Multi-Vortex Pinning to Ginzburg–Landau equations with External Potential in the Plane* 

We study the existence of multi-vortex solutions to the Ginzburg–Landau equations external potential in  $\mathbb{R}^2$ . We show that if the external potential is *strong enough* (in some sense) and has *widely spaced* critical points, then there exists multi-vortex solutions centered near the critical points of the external potential.

This is joint work with Aaron Pakylak.