1035-35-1134 **Thomas A. Ivey*** (`iveyt@cofc.edu`), Department of Mathematics, College of Charleston, 66 George St., Charleston, SC 29424, and **Annalisa M. Calini**. *Cable Knot Solutions of the Vortex Filament Flow.*

We describe how to generate a family of closed finite-gap solutions of the vortex filament flow, via a sequence of deformations of the multiply covered circle. We prove that every step in this sequence corresponds to constructing a cable on previous filament; moreover, the cable's knot type (which is invariant under the flow) can be read off from the deformation sequence. (Received September 18, 2007)