1041-92-236   **Javier Arsuaga*** (`jarsuaga@sfsu.edu`), Mathematics Department, 1600 Holloway Ave, San Francisco, CA 94132, **Rocco Varela**, Computer Science Department, 1600 Holloway Avenue, San Francisco, CA 94132, and **Robert Scharein**, Mathematics Department, San Francisco, CA 94132. *Knotting of equilateral random polygons with elevated writhe.* Preliminary report.

It has been previously reported that DNA inside bacteriophage P4 has non-zero writhe. Here we compute the knotting probability and complexity of knotted equilateral random polygons with elevated writhe. We propose that elevated writhing together with confinement drive the formation of knots in bacteriophage P4 capsids. (Received August 12, 2008)