

Meeting: 1002, Pittsburgh, Pennsylvania, SS 13A, Special Session on Mathematical Biology

1002-92-155 **Jonathan D Drover*** (jddst25@pitt.edu), University of Pittsburgh, Thackeray 301,
Pittsburgh, PA 15260. *Model of electrically induced phosphenes.*

Experiments by R.H.S. Carpenter (J. Physiol 229 1973) showed that electrically stimulating the human eyeball and then interrupting a uniform visual field with a retreating dark edge results in subjects witnessing persistent lines, or phosphenes, for a period of time. The current work models the creation of these lines using a grid of phase locked linear integrate and fire oscillators with a refractory variable. The coupling is nearest neighbor, and the boundaries move by asymmetric coupling. (Received September 13, 2004)