Abstract Submitted for the MAR06 Meeting of The American Physical Society

Dynamics of lasers coupled by nearest-neighbor interaction ALEXANDRA LANDSMAN¹, Naval Research Laboratory, IRA SCHWARTZ — The dynamics of arrays of nonlinear oscillators with diffusive coupling are investigated. The types of coupling needed to achieve synchronization are explored. The effects of time-delayed coupling are also considered. The results have implications for the production of coherent radiation in lasers and with suitable modification of the equations may be extended to biological networks.

¹NRC Postdoctoral Fellow

Alexandra Landsman Naval Research Laboratory

Date submitted: 30 Nov 2005

Electronic form version 1.4