

Line-defect formation of nematic liquid crystal in cardiac tissue

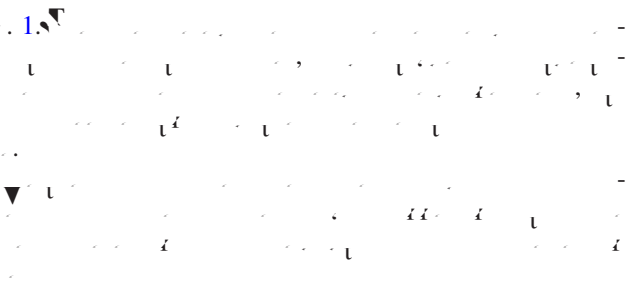
1,* A 2

¹Department of Applied Mathematics, University of Colorado, Boulder, Colorado 80309, USA

²Department of Physics and Center for Interdisciplinary Research on Complex Systems, Northeastern University, Boston, Massachusetts 02115, USA

2008; 6 2008; 30 2009



Fig. 1.  A diagram showing a network of nodes and connections. The nodes are arranged in a grid-like pattern with some additional connections. A blue arrow points to a specific node in the upper left, and a black arrow points to a node in the lower left.



$$D^{n+1} = f T D^n,$$

$$D^{1/2} = f T D,$$

$$= 0,$$

$$a^x, t e^{-t} r,$$

$$r, R r,$$

$$n =$$

E . 3

$L=2$ r_i 20,25
 17
 $a^x, jT / a^x, 0$ j $Tj+$
 F
 $a e^{jT}$
 20,
 $e^{jT} 1 - i/2$ $k = 1$ iwk $2k^2 f' I + i/2$ k , 4
 $k = 1/L + T/L$
 $f I$ $c I$ $A_2 D$ C
 20,
 $2/c$ $D^{1/2}$ 20,
 F_i 5

$T,$
 r_i
 C
 20,
 $r_i=0.72$
 $r_e=18$
 -2
 A
 -2
 F_t
 62.1 $6-467.9$ 22.1 311.6 -31.7 $/F_2$