

Line-defect formation of nematic liquid crystal in cardiac tissue

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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

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Fig. 1.

E . 2

$$D^{n+1} = f T D^n, \quad D^{1/2} = 0,$$

E . 3

$$r_n = \frac{R r}{n+1/2}, \quad R_{n,m} r = J'_{n-1/2} k_{n,m} r e^{J_{n+1/2} k_{n,m} r}$$

$$J'_{n+1/2} k_{n,m} r e^{J_{n-1/2} k_{n,m} r} = 0, \quad \partial_r a_{r_e} = 0, \quad n, m = 0, 1, \dots,$$

$$\partial_r a_{r_i} = 0, \quad k_{n,m}$$

$L=2$ 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 $/F_2$