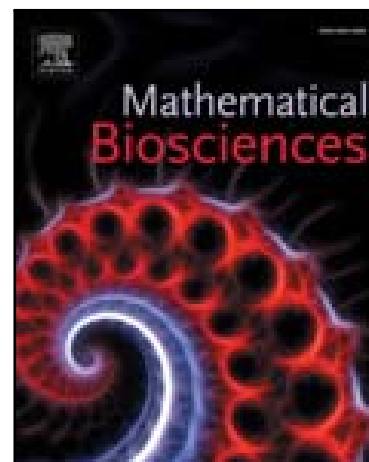


Analysis of the peristaltic-ciliary flow of Johnson-Segalman fluid induced by peristalsis-cilia of the human fallopian tube

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1 Highlights

- 2 • A model of peristalsis-cilia induced flow of Johnson-Segalman fluid within
3 fallopian tubal fluid in a finite narrow tube is developed.
- 4 • Highly non-linear PDE is solved using perturbation method.
- 5 • Important flow variables are analyzed for the involved parameters and
6 constants.
- 7 • Residue time of the Johnson-Segalman fluid in the narrow tube is 3-4 days;
8 which agreed with the time taken by the developing embryo in the human
9 fallopian tube.

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