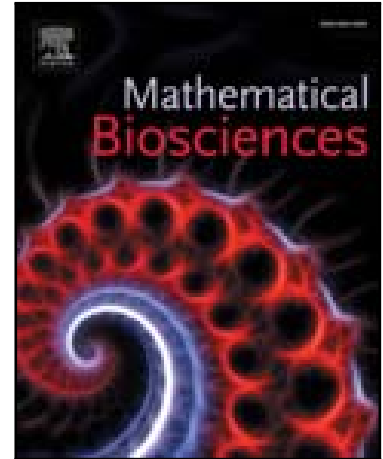


Accepted Manuscript

INTERACTION OF GLIDING MOTION OF BACTERIA WITH  
RHEOLOGICAL PROPERTIES OF THE SLIME

Z. Asghar , N. Ali , M. Sajid

PII: S0025-5564(17)30292-4  
DOI: [10.1016/j.mbs.2017.05.009](https://doi.org/10.1016/j.mbs.2017.05.009)  
Reference: MBS 7946



To appear in: *Mathematical Biosciences*

Received date: 31 August 2016  
Revised date: 20 May 2017  
Accepted date: 23 May 2017

Please cite this article as: Z. Asghar , N. Ali , M. Sajid , INTERACTION OF GLIDING MOTION OF BACTERIA WITH RHEOLOGICAL PROPERTIES OF THE SLIME, *Mathematical Biosciences* (2017), doi: [10.1016/j.mbs.2017.05.009](https://doi.org/10.1016/j.mbs.2017.05.009)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Highlights

- Hydrodynamics of gliding bacteria is studied based the constitutive equations of FENE-P, SPTT and Rabinowitsch models.
- The governing equation of the motion of all the three models is characterized by a single rheological parameter.
- The impact of important rheological parameter on gliding speed is reported.
- The predictions of the gliding speed based on Rabinowitsch model are in good agreement with the experimental results.

Download English Version:

<https://daneshyari.com/en/article/5760447>

Download Persian Version:

<https://daneshyari.com/article/5760447>

[Daneshyari.com](https://daneshyari.com)