

# Transcription factor binding sites detection in *Paramecium*

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Submitted to Proceedings of the National Academy of Sciences of the United States of America

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Keyword1 | Keyword2 | Keyword3

Abbreviations: SAM, self-assembled monolayer; OTS, octadecyltrichlorosilane

## Introduction

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$$\frac{D\theta}{Dt} = \frac{\partial\theta}{\partial t} + u \cdot \nabla\theta = 0 \tag{1}$$

Referencing equation [1]. Praesent volutpat, nibh in dignissim commodo, tellus justo consequat erat, vel consequat mi arcu vel lectus. Aliquam a tellus nec felis sagittis consequat. Quisque convallis imperdiet neque a tempor. Nulla non erat urna. Mauris vel lorem magna, tristique auctor ipsum. Aliquam pharetra eleifend massa. Donec porttitor sagittis luctus. Aliquam pretium luctus leo quis congue. Morbi vel felis mi. Suspendisse viverra tortor pretium orci lacinia eleifend. Phasellus aliquam, nunc eu cursus feugiat, erat odio porttitor libero, quis accumsan orci ipsum ut lorem. Vestibulum pharetra malesuada egestas. Sed non orci sit amet erat suscipit fringilla in et diam. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nunc ut rhoncus nulla. Aenean porta rhoncus suscipit.

## Results

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## Simulations.

### Simulation 1

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### Simulation 2

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**Real Data.** Aliquam interdum pellentesque scelerisque. Sed tincidunt suscipit purus, id aliquet nulla vehicula quis. Duis sed nisl lorem. Vivamus erat ante, dignissim et aliquam vel, adipiscing vitae magna. Cras id dapibus metus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Proin ut lectus ut nisi congue ullamcorper. Ut ac turpis ligula. Sed faucibus bibendum nunc eget gravida.

## Discussion

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Reserved for Publication Footnotes

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## Materials and Methods

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eget mi. Maecenas ut massa aliquet purus eleifend vehicula in a nisi. Fusce molestie cursus lacinia.

**Definition 1.** A bounded function  $\theta$  is a weak solution of QG if for any  $\phi \in C_0^\infty(\mathbb{R}/\mathbb{Z} \times \mathbb{R} \times [0, \varepsilon])$  we have

$$\begin{aligned} & \int_{\mathbb{R}^+ \times \mathbb{R}/\mathbb{Z} \times \mathbb{R}} \theta(x, y, t) \partial_t \phi(x, y, t) dy dx dt + \\ & + \int_{\mathbb{R}^+ \times \mathbb{R}/\mathbb{Z} \times \mathbb{R}} \theta(x, y, t) u(x, y, t) \cdot \nabla \phi(x, y, t) dy dx dt = 0 \quad [2] \end{aligned}$$

where  $u$  is determined previously.

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**Theorem 1.** If the active scalar  $\theta$  satisfies the equation [2], then  $\varphi$  satisfies the equation

$$\begin{aligned} \frac{\partial \varphi}{\partial t}(x, t) &= \int_{\mathbb{R}/\mathbb{Z}} \frac{\frac{\partial \varphi}{\partial x}(x, t) - \frac{\partial \varphi}{\partial u}(u, t)}{[(x - u)^2 + (\varphi(x, t) - \varphi(u, t))^2]^{\frac{1}{2}}} \\ &\quad \chi(x - u, \varphi(x, t) - \varphi(u, t)) du + \\ &\quad + \int_{\mathbb{R}/\mathbb{Z}} \left[ \frac{\partial \varphi}{\partial x}(x, t) - \frac{\partial \varphi}{\partial u}(u, t) \right] \\ &\quad \eta(x - u, \varphi(x, t) - \varphi(u, t)) du + \text{Error} \quad [3] \end{aligned}$$

with  $|\text{Error}| \leq C \delta |\log \delta|$  where  $C$  depends only on  $\|\theta\|_{L^\infty}$  and  $\|\nabla \varphi\|_{L^\infty}$ .

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## Appendix

An appendix without a title.

### Appendix: Appendix title

An appendix with a title.

**ACKNOWLEDGMENTS.** This work was partially supported by a grant from the Spanish Ministry of Science and Technology.

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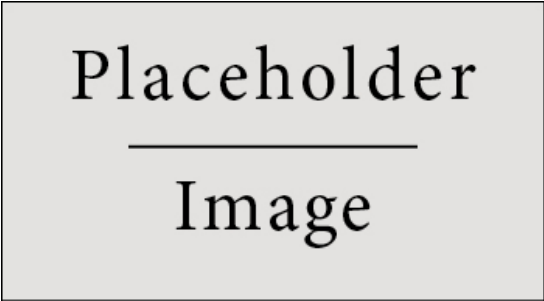


FIGURE 1. Figure caption

TABLE 1. Table caption

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296