



## Title of the publication

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Keyword1 | Keyword2 | Keyword3

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

#### Introduction

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

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#### Results

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#### Simulations.

#### Simulation 1

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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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#### Materials and Methods

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

$$\begin{split} &\int_{\mathbb{R}^{+}\times\mathbb{R}/\mathbb{Z}\times\mathbb{R}}\theta(x,y,t)\,\partial_{t}\phi\left(x,y,t\right)dydxdt + \\ &+ &\int_{\mathbb{R}^{+}\times\mathbb{R}/\mathbb{Z}\times\mathbb{R}}\theta\left(x,y,t\right)u(x,y,t)\cdot\nabla\phi\left(x,y,t\right)dydxdt = 0 \end{aligned} \eqno{[2]}$$

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

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

with  $|Error| \leq C \, \delta |log\delta|$  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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# Placeholder Image

 $\textbf{Fig. 1.} \quad \mathsf{Figure \ caption} \\$ 

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

