Title title title title title title title ⁉250 characters max

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⁉Notes that came in the template

Please do not include colors or graphics in the text.

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Please use "sentence case" for title and headings (capitalize only the first word in a title (or heading), the first word in a subtitle (or subheading), and any proper nouns).

Use "Eq" instead of "Equation" for equation citations.

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Place figure captions after the first paragraph in which they are cited. (example figure commented out)

Place tables after the first paragraph in which they are cited. (example table commented out)

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Abstract

⁉max 300 words

⁉no citations, minimal abbreviations if any

The abstract. Summary of what we did, what we got, etc.

Introduction

Very similar to the previous introduction: talk about the error propagation V model discrepancy curve, (briefly) about what our model is, why we want to "improve" the model, and define notation for a generic model.

Possibly also introduce screening, surrogate modeling, and sobol indices here too? So we have this section have all the math for a generic model and the methods section is about combining them and using them on a specific model?

⁉Majority of citations here

⁉Note any relevant controversies or disagreements in the field?

Conclude with a brief statement of the overall aim of the work and a comment about whether that aim was achieved

Materials and methods

Introduce specific information about the model

Introduce the specific data we have

Define exactly what our QoI is, what we are trying to minimize, etc.

Discuss the added "0th" step of building parameter distributions due to our specific model's behavior

Discuss our specific choice of surrogate

Discuss optimization specifics

Results

Very similar to previous paper - show overall improvement and talk about how few parameters were moved and how little they were moved.

Possibly talk about convergence of parameter distributions? Possibly talk about intermediate optimization results?

Discussion

Same as before - talk about what this helps us know about the model and how doing OAT optimization would have moved some parameters in the wrong way

Conclusion

Its a conclusion. Wrap everything up, re state key things obtained

Supporting information

S1 Fig. Bold the title sentence. Add descriptive text after the title of the item (optional).

S2 Fig. Lorem ipsum. Maecenas convallis mauris sit amet sem ultrices gravida. Etiam eget sapien nibh. Sed ac ipsum eget enim egestas ullamcorper nec euismod ligula. Curabitur fringilla pulvinar lectus consectetur pellentesque.

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Acknowledgments

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Author Contributions

†Not all needed, these are all the categories listed on the website
Conceptualization
Data Curation
Formal Analysis
Funding Acquisition
Investigation
Methodology
Project Administration
Resources
Software
Supervision
Validation
Visualization
Writing – Original Draft Preparation
Writing – Review & Editing

References

1. Conant GC, Wolfe KH. Turning a hobby into a job: how duplicated genes find new functions. Nat Rev Genet. 2008 Dec;9(12):938–950.

2. Ohno S. Evolution by gene duplication. London: George Alien & Unwin Ltd. Berlin, Heidelberg and New York: Springer-Verlag.; 1970.

3. Magwire MM, Bayer F, Webster CL, Cao C, Jiggins FM. Successive increases in the resistance of Drosophila to viral infection through a transposon insertion followed by a Duplication. PLoS Genet. 2011 Oct;7(10):e1002337.