

# MAE 298 Introduction to PDEs

## Electrochemical Modeling of Batteries

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*Abstract*—This

*Index Terms*—Article submission, IEEE, IEEEtran, journal, L<sup>A</sup>T<sub>E</sub>X, paper, template, typesetting.

### REFERENCES

- [1] *Mathematics Into Type*. American Mathematical Society. [Online]. Available: <https://www.ams.org/arc/styleguide/mit-2.pdf>
- [2] T. W. Chaundy, P. R. Barrett and C. Batey, *The Printing of Mathematics*. London, U.K., Oxford Univ. Press, 1954.
- [3] F. Mittelbach and M. Goossens, *The L<sup>A</sup>T<sub>E</sub>X Companion*, 2nd ed. Boston, MA, USA: Pearson, 2004.

### I. INTRODUCTION

**T**<sub>HIS</sub>

### II. MOTIVATION

### III. DERIVATION

### IV. ANALYSIS OF GOVERNING PDES

### V. NUMERICAL SOLUTION

### VI. RESULTS

#### A. Cases Structures

Many times cases can be miscoded using the wrong environment, i.e., `array`. Using the `cases` environment will save keystrokes (from not having to type the `\left\lbracket`) and automatically provide the correct column alignment.

$$z_m(t) = \begin{cases} 1, & \text{if } \beta_m(t) \\ 0, & \text{otherwise.} \end{cases}$$

is coded as follows:

### VII. CONCLUSION

The conclusion goes here.

### ACKNOWLEDGMENTS

This should be a simple paragraph before the References to thank those individuals and institutions who have supported your work on this article.

### VIII. REFERENCES SECTION

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### IX. SIMPLE REFERENCES

You can manually copy in the resultant .bbl file and set second argument of `\begin` to the number of references (used to reserve space for the reference number labels box).

## X. BIOGRAPHY SECTION