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I. INTRODUCTION

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II. MAIN RESULTS

The main results and findings go here. You may also have a section for Preliminaries before this section.

First, if you do not want to number an equation, do not use \begin–\end. You can either use \[–\] or \$\$–\$\$. For example, we have

$$\dot{x} = f(x, u) + g(x, u)$$

or

$$\ddot{s} = G(s, t)$$

where f , g , and G are functions. It is recommended that you do not number an equation if it will not be cited in your paper.

Equation (1) is numbered! The following equation is produced using \begin{equation}–\end{equation}. The main objective function for each unit can be represented by a quadratic cost function given by

$$F_i(P_i) = a_i + b_i P_i + c_i P_i^2 \quad (1)$$

where a_i , b_i , and c_i in (1) are the fuel consumption cost coefficients of unit i , and P_i represents the value of the power to be determined for unit i .

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Recently, it is popular to use `\begin{align}–\end{align}` instead of `\begin{eqnarray}–\end{eqnarray}`. Equation (2) is produced using `\begin{align}–\end{align}`. The objective function for each unit can be represented by

$$\begin{aligned}\dot{x}_l &= \sum_{i=1}^m \frac{c_{P_{x_i}} e^{k_{x_i} \bar{x}_i} + c_{N_{x_i}} e^{-k_{x_i} \bar{x}_i}}{e^{k_{x_i} \bar{x}_i} + e^{-k_{x_i} \bar{x}_i}} \\ &\quad + \frac{1}{2} \sum_j^q (c_{P_{u_j}} + c_{N_{u_j}}) \\ y &= A_0 + A_1 \tanh(K_x \bar{x}) + B \tanh(K_u \bar{u}) \\ &= F(x),\end{aligned}\quad (2)$$

where $F(x)$ is a function.

Well, the same equation, when it is produced using `\begin{eqnarray}–\end{eqnarray}` becomes (3):

$$\begin{aligned}\dot{x}_l &= \sum_{i=1}^m \frac{c_{P_{x_i}} e^{k_{x_i} \bar{x}_i} + c_{N_{x_i}} e^{-k_{x_i} \bar{x}_i}}{e^{k_{x_i} \bar{x}_i} + e^{-k_{x_i} \bar{x}_i}} \\ &\quad + \frac{1}{2} \sum_j^q (c_{P_{u_j}} + c_{N_{u_j}}) \\ y &= A_0 + A_1 \tanh(K_x \bar{x}) + B \tanh(K_u \bar{u}) \\ &= F(x),\end{aligned}\quad (3)$$

where $F(x)$ is a function. You get the idea!

A. Example of a Figure

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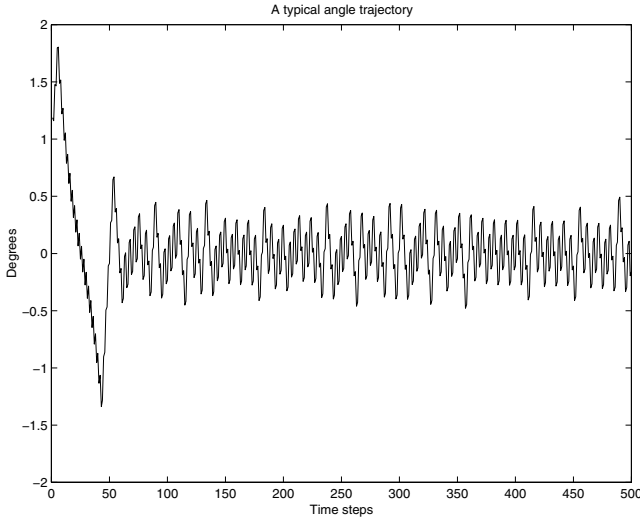


Fig. 1. Simulation results

B. Figures and Tables

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TABLE I
PAGE LIMIT

Page limits	6
Excess page charge	\$150/page

C. Page Limit and Overlength Page Charges

A paper submitted to this conference should be prepared in a single-spaced, two-column format and its length must be kept to 6 pages and below. In exceptional circumstances up to two additional pages will be permitted for a charge of \$150 per additional page. Table I shows the page limit and page charge schedule.

Another example of table is shown in Table II.

TABLE II
COMPARISON RESULTS WITH METHODS IN [2] (40 UNIT SYSTEM WITH VALVE-POINT EFFECTS)

Method	Mean time	Best time	Mean cost	Maximum cost	Minimum cost
CEP	928.36	926.20	124793.5	126902.9	123488.3
FEP	646.16	644.28	124119.4	127245.9	122679.7
MFEP	1056.8	1054.2	123489.7	124356.5	122647.6
IFEP	632.67	630.36	123382.0	125740.6	122624.4
TM	94.28	91.16	123078.2	124693.8	122477.8

III. CONCLUSIONS

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APPENDIX

Put your appendix here if you have any.

ACKNOWLEDGMENT

The authors would like to thank Mr. XYZ for his/her help. This work was supported in part by the National Science Foundation under grant no. XXXXX, etc.

REFERENCES

- [1] P. G. DeLima and G. G. Yen, "Multiple model fault tolerant control using globalized dual heuristic programming," *Proc. IEEE International Symposium on Intelligent Control*, Houston, TX, Sept. 2003, pp. 523–528. (Invited paper)
- [2] A. N. Michel and R. K. Miller, *Qualitative Analysis of Large Scale Dynamical Systems*, New York: Academic Press, 1977.
- [3] D. V. Prokhorov, *Adaptive Critic Designs and Their Applications*, Ph.D. Dissertation, Texas Tech University, Lubbock, TX, Oct. 1997.
- [4] J. Si, A. Barto, W. Powell, and D. Wunsch, Editors, *Handbook of Learning and Approximate Dynamic Programming*, New York: IEEE and Wiley, 2004.
- [5] P. J. Werbos, "Approximate dynamic programming for real-time control and neural modeling," in *Handbook of Intelligent Control: Neural, Fuzzy, and Adaptive Approaches* (Chapter 13), Edited by D. A. White and D. A. Sofge, New York, NY: Van Nostrand Reinhold, 1992.
- [6] P. J. Werbos, "Building and understanding adaptive systems: A statistical/numerical approach to factory automation and brain research," *IEEE Transactions on Systems, Man, and Cybernetics*, vol. SMC-17, pp. 7–20, Jan./Feb. 1987.