Sample paper for CIG 2006
The 2006 IEEE Symposium on Computational Intelligence and Games

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Abstract— **This paper provides a LaTeX template and formatting guide for submissions to the 2006 IEEE Symposium on Computational Intelligence and Games. An abstract, such as this, should summarize the contents of the paper using at least 70 and at most 200 words. Since IEEE only has general guidelines and no prescribed conference format LaTeX files (.cls and .bst), you will want to carefully follow the format in this paper and its LaTeX source file. CIG06 does have keywords so provide them after the abstract.**

Keywords: Computational Intelligence, Games, Symposium

I. Introduction

The 2006 IEEE Symposium on Computational Intelligence and Games will be held in Reno/Lake Tahoe from the 22^{nd} to the 24^{th} of May 2006. Computer games model many interesting real-world problems and provide a fun, scalable, virtual environment for artificial intelligence research. The Reno/Lake Tahoe area provides a fun, diverse, real-world environment for game playing research.

The next section describes the symposium and venue in more detail. Section III discusses the page layout and formatting. The last two sections provide results and conclusions.

II. The Symposium

The 2006 Symposium, CIG06, is the second CIG in the series and the first CIG to be held in the United States. CIG05, organized by Simon Lucas and Graham Kendall, was held in the UK. Graham ensures continuity by serving as one of the co-general chairs of CIG06.

The Symposium talks and poster sessions will be held in the JOT Travis Student Union (JTSU) building on the campus of the University of Nevada, Reno (UNR). Figure 1 shows Manzanita lake on the university campus. UNR, Nevada's Land Grant institution, was founded in the late 1800s and has a pleasing blend of old and modern architectures on a beautiful campus.

Note that the proceedings will *not* be in color so please ensure that your figures are made and formatted accordingly. Figures should be centered, captioned, and scaled.

Fig. 1. Manzanita Lake on the UNR campus

A. Gaming Research in Reno

The symposium venue is easily accessible from downtown by a free shuttle service that runs every fifteen minutes. If you do not want to wait for the shuttle, the JTSU is about a ten minute walk from downtown Reno hotels which provide a great venue for gaming research. Bring money.

If your research is more aligned with computer gaming, we plan on setting up a gaming room where you can try your hand at computer games. You may play against other symposium attendees or against the game AI. One possibility that may materialize involves playing the Lagoon real-time strategy game against a genetic algorithm player [1]. Lagoon uses Case-Injected Genetic Algorithms (CIGARs) to learn from experience [2].

1) Example Subsubsection heading: We would like to discourage subsubsections

III. Page Layout

We took this from the WCCI 2006 LaTeX formatting instructions.

- IEEE now only accepts 100% Xplore compliant papers prepared in PDF format. Please make sure that you follow these guidelines in preparing your PDF files. Violations of any of these specifications may result in rejection of your papers.
- Paper size: US letter format (8.5×11 in) or 216×278 mm.

- File size limitation: 2.0 MB.
- Paper length: Maximum 8 pages, including figures, tables and references. In exceptional circumstances up to two additional pages will be permitted for a charge of $150 per additional page.
- Paper formatting: Double column, single spaced, 10pt font.
- Text width: 7.0 in (178 mm) and text height: 9.375 in (240 mm). All text and figures must be contained in the 178×240 mm image area.
- The left/right/bottom margin must be 0.75 in (19 mm).
- The top margin must be 0.75 in (19 mm), except for the title page where it must be 1 in (25 mm).
- Text should appear in two columns, each 3.4 in (86.5 mm) wide with 0.2 in (5 mm) space between columns.
- Do **NOT** page number your manuscript.
- Unix LaTeX users please use the following command:
  - latex mypaper
  - bibtex mypaper
  - latex mypaper
  - dvips -Ppdf -G0 -tletter mypaper.dvi
  - ps2pdf mypaper.ps mypaper.pdf

The page size and margin settings in IEEEtran.cls are set for IEEE Transactions papers. We have made some adjustments to produce this sample paper. We use the IEEEtran.bst BibTeX style file, included in this package, for citations.

Last, WORD users can also download the template file for WORD posted on the CIG 06 website.

IV. Odds and Ends

The sample tables and equations in this section may help novice LaTeX users. You can also find LaTeX and BibTeX help on the web.

The equation below computes effectiveness.

$$\mathcal{E} = \sum_{i=0}^{i=m} T_i^p P_i^a \ - \left[\begin{array}{ll} \|P_i^k - P_i^a\| & \text{if } P_i^a > 0 \\ & \\ P_i^k T_i^p & \text{if} P_i^a = 0 \end{array} \right]$$

If you want to refer to the equation in the text you would use the *equation* environment that produces numbered equations.

$$\mathcal{E} = \sum_{i=0}^{i=m} T_i^p P_i^a \ - \left[\begin{array}{ll} \|P_i^k - P_i^a\| & \text{if } P_i^a > 0 \\ & \\ P_i^k T_i^p & \text{if} P_i^a = 0 \end{array} \right] \tag{1}$$

Then you could say: Equation 1 computes the effectiveness of allocating assets i to tasks k.

Table I shows page limits for CIG06 papers and specifies page charges for longer papers. We emphasize that you can have a maximum of two (2) extra pages.

V. Conclusions

CIG06 promises to be an exciting and rewarding symposium. We expect to have a single track for presentations, a poster session, a gaming room, and plenty of time for offline discussions.

TABLE I
PAGE LIMIT

Page limit	8 pages
Excess page charge	$150/page

Acknowledgments

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References

[1] C. Miles and S. J. Louis, “Case-injection improves response time for a real-time strategy game,” in *Proceedings of the 2005 IEEE Symposium on Computational Intelligence in Games*. New York: IEEE Press, 2005, pp. 149–156.

[2] S. J. Louis and J. McDonnell, “Learning with case injected genetic algorithms,” *IEEE Transactions on Evolutionary Computation*, vol. 8, no. 4, pp. 316–328, 2004.