

## Information for LAJPE Authors

The submissions must be well written. Papers may be comprehensive reviews or reports of original investigations that make a definitive contribution to existing knowledge. The content must not have been published or accepted for publication elsewhere (except in the form of an abstract or as a part of a published lecture, review or thesis), and papers must not be under consideration by another journal. LAJPE accepts papers in Spanish, English, and Portuguese. For regular papers the Editorial Board suggests a maximum extension of 15 pages for the contributions. The manuscripts exceeding 15 pages must be divided in Part I and Part II, in the case of reviews the extension can be up to 30 pages. The sections of the journal are: 1) Letters to Editor, 2) Notes and Discussions, 3) Research papers, 4) Reviews, 5) Book reviews, 6) Meetings on Physics Education.

The submitted papers will be refereed by two active and anonymous researchers, and only original and scientifically accurate papers will be accepted for publication. The journal only accepts electronically submitted manuscripts in MSWord, according to the journal style; the MSWord template is available in the link **LAJPE template**. We prefer Times New Roman fonts, size 10 pt, with single space and two columns. It is also important to reproduce the spacing of the text and headings as shown in LAJPE template. Please preserve the style of the headings, text font and line spacing in order to provide a uniform style for the journal. Paragraphs should have its first line indented by about 0.25 inch except where the paragraph is preceded by a heading, a formula, a table or a list. Subsections should be numbered by capital letters **A, B, C,...**, and the title should be set in lower case in bold Times New Romans 10 pt.

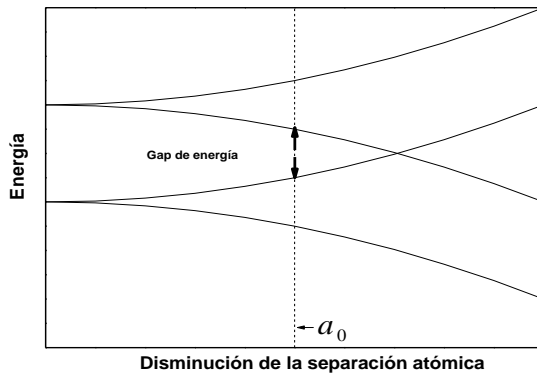
The contributions must be sent to the electronic address [cem136@gmail.com](mailto:cem136@gmail.com) or [journal@lapen.org.mx](mailto:journal@lapen.org.mx). It is suggested that the authors use our MSWord template.

### TITLE AND ABSTRACT

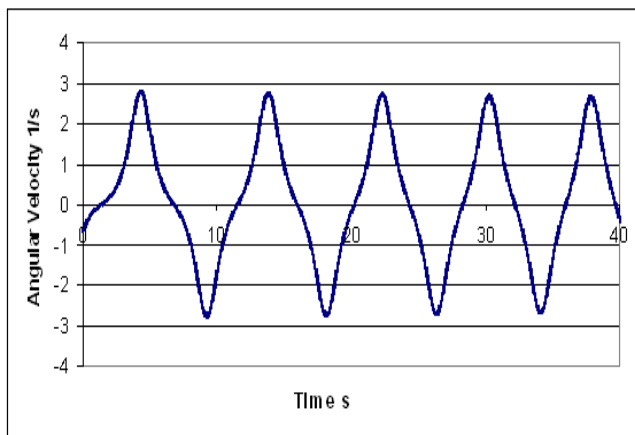
The title of the paper should be short and reflect the paper's content. Papers in LAJPE include abstracts presenting the most important results and conclusions, preferably no longer than 10 lines. An abstract in English is necessary. It is preferable not to use footnotes in the abstract or the title; the acknowledgments of funding bodies etc. are to be placed in a separate section at the end of the text.

### FIGURES

The figures must be inserted in the body of the manuscript and supplied as separate files. It is best to embed the figures in the text where they are first cited, e.g. see Figure 1. Please ensure that all labels in the figures are legible irregardless of whether they are drawn electronically or manually. The figure caption should be written as in the following examples:



**FIGURE 1.** [Times New Roman 9] It is shown the two energy levels of the atoms in a infinite crystal. At  $a_0$  the energy band are separated by a *gap*.



**FIGURE 2.** Initial cycles for the angular velocity  $\omega$  showing a non-harmonic movement.

## TABLES

The tables should be numbered in the order of their first appearance with roman numbers. The tables must have a descriptive title which should make the tables intelligible without reference to the text. The title must be inserted in a line at the beginning of the table [Times New Roman 9]. The table must be written in [Times New Roman 9]. The structure should be clear, with simple column headings giving all units. For the inner lines of the table, it looks better if they are kept to a minimum. The tables should be designed to have a uniform style throughout the paper.

### Example:

**TABLE I.** Mean size of the particles as a function of the grinding.

<i>Grinding time (min)</i>	<i>Mean size (<math>\mu\text{m}</math>)</i>
2.5	315
5	185
8	128
30	46
45	34
60	27

## EQUATIONS

Equations should be centered and numbered consecutively, as in Eq. (1). An alternative method is given in Eq. (2) for long sets of equations where only one referencing equation number is wanted.

Mathematics should be prepared using italics. Equations should be neatly formatted, punctuated, and aligned to bring out their structure, and numbered on the right. The size of the numbers and symbols must be equal to that of the text.

### Examples:

If the quantities  $\varepsilon_1$  and  $\varepsilon_2$  are the matrix elements located at  $\langle 1|H|1\rangle$  and  $\langle 2|H|2\rangle$ , and  $|m,1\rangle$  and  $|m,2\rangle$  stand for the states  $|1\rangle$  and  $|2\rangle$  of the atom  $m$ , then the integrals  $\beta_1$ ,  $\beta_{12}$ , and  $\beta_2$  are generally different from zero. The Bloch Theorem set up a linear combination of the atomic states:

$$\Psi_k^{(n)} = N^{-\frac{1}{2}} \sum_m e^{ikma} (c_1^{(n)}(k)|m,1\rangle + c_2^{(n)}(k)|m,2\rangle), \quad (1)$$

$$\begin{aligned} \Psi_0 &= C_{abcd} l^a m^b l^c m^d, & \Psi_1 &= C_{abcd} l^a m^b l^c n^d, \\ \Psi_2 &= C_{abcd} l^a m^b \bar{m}^c n^d, & \Psi_3 &= C_{abcd} l^a n^b \bar{m}^c n^d, \\ \Psi_4 &= C_{abcd} \bar{m}^a n^b m^c n^d, \end{aligned} \quad (2)$$

## LIST

The basic model makes the following assumptions:

It should be emphasized that, although high technology is, by itself, no panacea, it can be very advantageous when it promotes interactive engagement, as in:

- Computerized classroom communication systems (see, e.g., Bruff, D. [32] and Hake [33].
- *Properly implemented* microcomputer-based labs [30].
- Computer-implemented tutorials [34].
- *Just-in-time teaching* [35, 36].

The metacognitive dimension of TADIR corresponds to the Review step (R) and can be used as a test in two ways:

1. To scrutinize the practical scaffoldings applied for chaining ideas while unfolding the solution procedure, and
2. to examine how the readers understand the discourse showing how the solution was obtained.

## CONCLUSIONS

The conclusions must notice the new and remarkable contributions of the paper. Also the suggestions and shortcomings of the manuscript must be pointed out.

## ACKNOWLEDGEMENTS

If you wish to acknowledge funding bodies, people, etc., the acknowledgments may be placed in a separate section at the end of the text, before the References.

**Examples:** This work was supported by UCM project No. 23852. Author 2 is supported by the fellowship NSC-232423. This work was supported partially by Research Project SIP-20060859, etc.

## REFERENCES

References should be listed numerically at the end of each manuscript. References in the text are indicated by full-sized Arabic numerals enclosed in square brackets.

References should be numbered in the order in which they are referred to in the text. The numbers of the references should be given in square brackets.

### Examples:

In recent times the Active Learning of Physics has been considered by Brown [1], some authors pointed out that this method encourages the group collaboration [1, 2, 3]. These results can be reviewed in [3], or according with [4], etc...

The references should consist of: name(s) and initials, title (in italics), journal or book, volume (in bold face), the page numbers and date published. For books, include the publisher and town of publication.

### Examples:

[1] Brown, E., *The Schrödinger cat* (Pearson Education, New York, 1997).

[2] Jackson, J. D., *Classical Electrodynamics*, 3<sup>rd</sup> ed. (Wiley, New York, 1999), p. 748.

[3] Abraham, M. A., *Epistemology of teaching motion*, Am. J. Phys. **12**, 952-968 (1992).

[4] Hee, H. and Drummond, D., *Students conceptions on Classical Mechanics*, Phys. Rev. E **54**, 896-903 (2003).

[5] Quiroz, J., <<http://www.paidos.fisica.org/art1.htm>>, visited in September 20, 2007.

[6] Scherr, R. E., "An investigation of students understanding of basic concepts in special relativity", Ph.D. dissertation, Department of Physics, University of Washington, 2001 (unpublished), available in

<[www.physics.umd.edu/perg/papers/scherr/index.html](http://www.physics.umd.edu/perg/papers/scherr/index.html)>.

## **APPENDIX**

The appendix should be placed in a separate section at the end of the text after References. It is preferable not to have Appendices in a brief article, but if more than one Appendix is necessary then set headings as Appendix A, Appendix B, etc.