5. Mechanical and Physical Micro Sensors and Systems (please choose category from list) | **Poster** (if requesting poster) | **0001** (reference number from website confirmation)

MEMS 2005 CONFERENCE SAMPLE ABSTRACT AND INSTRUCTIONS FOR ABSTRACT PREPARATION

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The purpose of the Abstract submitted to MEMS 2006 is to tell the Program Committee what new results you propose to present. Therefore, it is important within the first few sentences to state what your primary result is. For example: "This paper reports an improved method for reducing cross-sensitivity in micromachined gyroscopes."

It is also important to identify how the new work differs from previous work of your own group and of other groups, especially work presented at recent and upcoming *international* meetings. For example: "The fabrication process for the gyroscope was reported at MEMS 2002 [1], and an analysis of the new electrode pattern which accomplishes the reduction in cross-axis sensitivity will be reported at IEDM 2003 [2]. This paper will show a complete set of experimental results on five device geometries, and will also report on simulations which provide design guidelines for adapting this method to other types of gyroscopes. The method reported here differs from previous work [3,4] in the specific method of temperature compensation and in the geometry of the electrodes and their placement within the structure.

After an introduction of the basic ideas and how the work relates to other work, present detailed descriptions of methods, device structures, and examples of specific results, whether experimental or theoretical. These results can be supported by figures and/or tables. For example: "A schematic view of the gyroscope is shown in Figure 1, with a close-up detail of the electrode geometry and placement in Figure 2. The fabrication process is schematically shown in Figures 3. Table 1 shows the ratio of cross-sensitivities to in-plane yaw for a set of five devices fabricated with different overall geometries and sensitivities. Also shown in Table 1 are the simulation results for these specific device geometries using the analysis procedure in [2]". After presentation of results, it is useful to compare specific results with related work, to discuss possible discrepancies or agreements, and also to comment on the broader impact of the results.

The abstract is limited to two pages (either A4 Standard or US Standard 8.5 x 11 inches). The text is limited to no more than 600 words (please indicate the word count at the bottom of your abstract). Figures and Tables should be collected on page 2. Please do not use a font size smaller than 10 point. Please make sure that all figures and photographs are clearly visible. If the program committee cannot clearly see and understand the role of the visual material included in the abstract, the material and consequently the abstract likely will be viewed negatively. The header line with abstract category, possible Poster preference, and abstract reference number, and the title, authors (presenting author underlined), short affiliations, and all of the text must fit on the first page, as outlined in this sample abstract. Place figures and tables on the second page. References (in short format) and the full address of the submitting author including fax, phone, and e-mail can go on either page. All abstracts submitted on time and will be considered for both Oral and Poster Sessions unless the submitting author specifically requests a Poster. This request, if used, should be on the header line of the abstract.

One original and a total of 25 high-quality copies are to be submitted to: IEEE MEMS 2006 Conference, c/o PMMI Preferred Meeting Management, Inc., 307 Laurel Street, San Diego, CA 92101-1630, USA. Please visit the web-site for all details pertaining to the submission of abstracts.

Fax or e-mail submission are not acceptable. The deadline for receipt of hardcopy of your abstract is **August 16, 2005**. **This is a firm deadline**. **Word count: 599**

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References

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[3] S. Mart and S. O. Lution, *J. Microelectromech. Syst.*, 23 (2004), pp. 300-315.
[4] B. Etter and A. P. Proach, *The Gyro Handbook*, 2nd ed. (Singer, 1995), pp. 400-401.

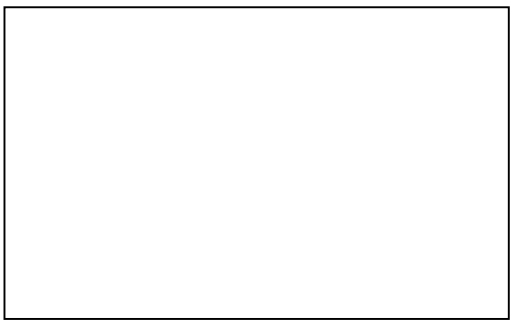

Fig. 1: Schematic view of the gyroscope.

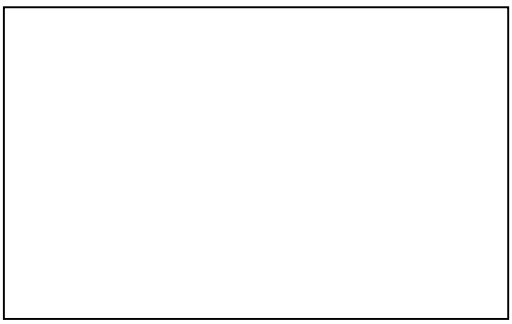

Fig. 3: Schematic fabrication steps.

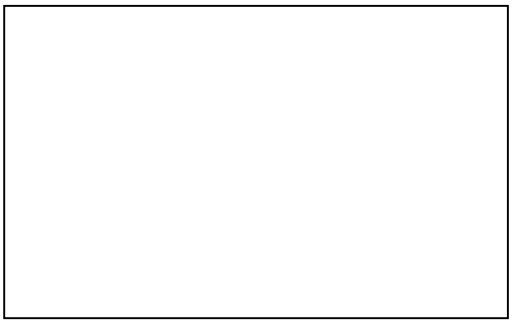

Fig. 2: Electrode location and geometry.

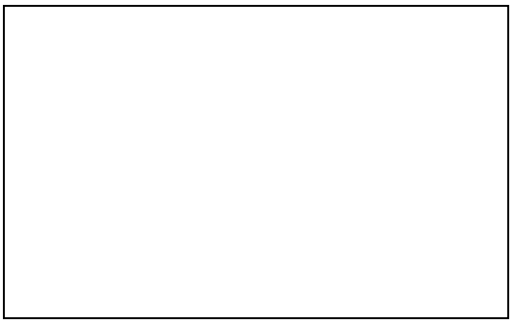

Fig. 4: Response to various yaw directions.

Table 1: Measured and simulated cross-axis sensitivities for different electrode geometries

Geometry	S_{xy} (measured)	S_{xy} (simulated)
1		
2		
3		
4		
5		