

**HONOURS PROJECT PROPOSAL****Supervisor's info:**

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**This project is suitable for:**

Individual only     Group of 3     Group of 4     Group of 5

**Title:**

Measuring the Tropical Year in Chinese Astronomy

**Subject classification:**

7, 11.

Using the following list, indicate the most appropriate classification for your project in the box above:

- |  |                                  |
|--|----------------------------------|
| 1. Algebra & Number Theory                     | 6. Logic & Theory of Computation |
| 2. Analysis                                    | 7. Mathematical Physics          |
| 3. Approximation & Wavelets                    | 8. Operations Research           |
| 4. Combinatorics & Graph Theory                | 9. Probability & Statistics      |
| 5. Differential Equations & Numerical Analysis | 10. Topology & Geometry          |
|  | 11. Miscellaneous                |

**Description of the scope of the project:**

We will start with the article Shigeru Nakayama, Accuracy of Pre-Modern Determinations of Tropical Year Length, Jap. Stud. Hist. Sci 2 (1963), 101-118. We will also look at various other sources to understand both the physics and the history of the methods. We will create a clear explanation of the paper. This project is very suitable for a group project. We need to create good graphics, understand physics, dig for historical sources, and read Chinese astronomy books.

**Level of difficulty:**

Less Difficult       Moderately difficult       Difficult

The supervisor's perspective of the level of difficulty in this project may not be the same as the students'. Student should clarify with the supervisor, if in doubt.

**Expectation/s:**

This project is expository, so the emphasis is on good exposition.

**Role of group members (for group projects only):**

Ideally, the group would include people with skills at creating good graphics, good writing skills, good Chinese reading skills and interest in astronomy.

**Prerequisite/s:**

**Relevant MA4000 modules/co-requisites:**

**Reference/s:**

Shigeru Nakayama, Accuracy of Pre-Modern Determinations of Tropical Year Length, Jap. Stud. Hist. Sci 2 (1963), 101-118.