

## **Spectrum-Based Bug Localization of Real-World Java Bugs**

**Cherry Oo**

**cherryoo@ucsm.edu.mm**

**University of Computer Studies, Mandalay, UCSM**

**Hnin Min Oo**

**khinthidalynn@ucsm.edu.mm**

**University of Computer Studies, Mandalay, UCSM**

The localization of software bug is one of the most expensive tasks of program repair technology. Hence, there is a great demand for automated bug localization techniques that allow a programmer to be monitored up to the location of the error with little human arbitration. Spectrum-based bug localization helps software developers to quickly discover errors by investigating a program's trace summary and creating a ranking list of most modules that may be in error. We used the real-world Apache Commons Math and Apache Commons Lang Java projects to examine the accuracy using spectrum-based bug localization metric. Our findings show that the higher performance of the specific similarity coefficients used to examine the spectra information is more effective in locating individual bugs.