

# SE&T Colloquium Series-Winter 2015

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| Speaker  | Dr. Olivier Heubo-Kwegna<br>Department of Mathematical Sciences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Title    | <i>Localizing BCK-Algebras</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Abstract | <p>It is quite typical to use localization at prime ideals in ring theory to understand the structure of rings. The local-global principle is an instance where one can go back and forth between properties of a ring and properties of its localizations. In this talk, we discuss local BCK-algebras, that is; BCK-algebras with exactly one maximal ideal. We first provide a fraction structure on BCK-algebras (an extension of Borzooei and Shohani's BCK-fractions) with a special construction when prime ideals are considered. Then we show that the localization of an implicative BCK-algebra at any prime ideal is the BCK-algebra of order 2. We end the talk by introducing an undergraduate project related to the ideals of BCK-algebras. A good candidate for the above project might be a student taking Math 420 (Abstract Algebra). Completing the project might lead to publication in an undergraduate math journal. So all junior and senior math students are invited to the talk and are very welcome to contact me afterward if interested in this research project. We may apply for some student's stipends at:</p> <p><a href="http://www.svsu.edu/sponsoredprograms/svsuundergraduateresearchprogramugrpsvsu/">http://www.svsu.edu/sponsoredprograms/svsuundergraduateresearchprogramugrpsvsu/</a></p> |
| Date     | Tuesday, February 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Time     | 4:10-5:00pm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Place    | Pioneer 240                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|          | Refreshments will be served at 4:00pm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |