1023-E5-78 **T D Taylor*** (ttaylor@stfx.ca), Department of Mathematics, Statistics and CS, St. Francis Xavier University, Antigonish, NS B2G 2W5, Canada. *Finding Gold In The Forest: Fractal Trees* and the Golden Ratio.

This talk presents the four self-contacting symmetric binary fractal trees that scale with the golden ratio. These trees possess remarkable symmetries in addition to the usual symmetries associated with symmetric binary fractal trees. The trees provide new visual representations of well-known equations and geometrical objects involving the golden ratio. Golden variations of familiar fractals including the Cantor set and the Koch curve are discussed, along with their connections to the golden fractal trees. The observations about the golden trees presented here provide many interesting and entertaining exercises involving trigonometry, geometric series, fractal trees and the golden ratio. (Received July 27, 2006)