

CCSU  
DEPARTMENT OF MATHEMATICAL SCIENCES

# COLLOQUIUM

Friday, February 23

2:00 – 3:00 PM

Maria Sanford, Room 101

## NEW EXAMPLES OF MINIMAL IMMERSED PLANES IN THE EUCLIDEAN 3 DIMENSIONAL UNIT SPHERE

OSCAR PERDOMO

LEHIGH UNIVERSITY

**Abstract:** We will discuss new examples of minimal planes in  $S^3$ . I discovered these examples a couple of months ago while I was trying to classify all minimal tori in  $S^3$  with nullity less than 8. The nullity of a minimal surface is the dimension of the kernel of the stability operator,  $J(f) = \Delta f + 2f + 2af$ , where the principal curvatures of the minimal surfaces are the functions  $a$  and  $-a$ , with  $a$  non negative.

Together with the application in Differential Geometry, these new examples produce a new method for finding solutions of the *sinh-Gordon* equation.

**For further information:**

[gotchevi@ccsu.edu](mailto:gotchevi@ccsu.edu) 860-832-2839 or [castanedan@ccsu.edu](mailto:castanedan@ccsu.edu) 860-832-2851

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