

962-47-1290

Claudio H Morales* (morales@math.uah.edu), Department of Mathematics, University of Alabama in Huntsville, Huntsville, AL 35899. *A Bolzano's Theorem in the New Millennium.*

As we well know, the solvability of nonlinear equations has awakened interest among mathematicians, perhaps as early as the Babylonian culture (3,000-300 B.C.E.). However, we intend to bring to our attention that some of the problems studied nowadays first arose during the time of Bolzano's era (1781-1848). In fact, this Czech mathematician has rigorously proven what is known today as the Intermediate Value Theorem, a result that is intimately related to various classical theorems. In addition, some new results in this direction, for monotone operators defined in Banach spaces, will also be discussed. (Received October 03, 2000)