1077-34-160   **Zhivko S. Athanassov*** (`zhivko@math.bas.bg`), G. Bonchev Str. 8, 1113 Sofia, Bulgaria.
Topological Aspects of Stability of Trajectories. Preliminary report.

This talk is about the concept of stability of trajectories with respect to a given set. Conditions are examined under which a trajectory returns infinitely often in an arbitrarily restricted neighborhood of each of its points (Poisson stability). Sufficient conditions are imposed which allow the development of results concerning sets of points of a given perfect set whose trajectories under continuous motions are Poisson stable. The previous work of Poincare', Denjoy and Trjitzinsky on the Poisson stability were on the case of discrete motions. Furthermore, the concept of quasi-nonwandering points is introduced in conection with the notions of wandering and nonwandering points and their topological properties, and results on sets of such points are presented. (Received August 03, 2011)