

## 无线传感器网络节点定位的移动信标节点路径规划

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摘要:

为了进一步提高无线传感器网络节点定位精度和覆盖率, 本文在采用移动信标节点来对未知节点进行定位方面, 提出了信标节点向最大覆盖未定位节点方向移动的路径规划算法, 解决了信标节点的移动路径规划问题。仿真实验表明, 和信标节点随机方向移动算法相比, 该算法具有较好的定位性能, 能很好地适应大规模随机不均匀散布节点的应用需求。

关键词: 无线传感器网络; 路径规划算法; 信号强度; 移动信标节点

## Path Planning for Mobile Beacon Nodes in Localization for Wireless Sensor Networks

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**Abstract:**

To further enhance the location precision and coverage rate of unknown nodes in wireless sensor networks, we apply moving path planning algorithm that beacon nodes move to the maximum coverage of unlocated nodes and solve the planning of beacon nodes moving path in use of mobile beacons nodes to localize unknown nodes. As is shown in the experimental results, compared to the random moving algorithm of beacon nodes, this algorithm obtains good localization performance and is well adapted to large-scale applications with nodes spreaded by random and uneven.

**Keywords:** wireless sensor network ; path planning algorithm; signal strength; mobile beacon node

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