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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG,

(54) Title: RANDOM WALK METHOD AND APPARATUS FOR PARASITIC CAPACITANCE EXTRACTION, AND ELECTRONIC DEVICE

(54) 发明名称: 用于寄生电容提取的随机行走方法、装置和电子装置

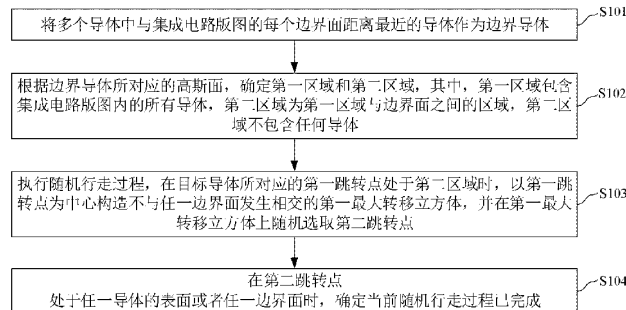


图 1

- S101 Take amongst a plurality of conductors a conductor closest to each boundary surface of an integrated circuit layout as a boundary conductor
- S102 According to a Gaussian surface corresponding to the boundary conductor, determine a first region and a second region, the first region comprising all conductors in the integrated circuit layout, the second region being a region between the first region and the boundary surface, and the second region does not contain any conductor
- S103 Execute a random walk process, and when a first jump point corresponding to a target conductor is located in the second region, by taking the first jump point as the center, construct a first maximum transfer cube that does not intersect any boundary surface, and randomly select a second jump point on the first maximum transfer cube
- S104 When the second jump point is located on the surface of any conductor or on any boundary surface, determine that a current random walk process has been completed

(57) Abstract: A random walk method and apparatus (100) for parasitic capacitance extraction, and an electronic device (200). The method comprises: taking a conductor closest to each boundary surface (23) of an integrated circuit layout as a boundary conductor (21); according to a Gaussian surface (22) corresponding to the boundary conductor (21), determining a first region and a second region; when a first jump point is located in the second region, by taking the first jump point as the center, constructing a first maximum transfer cube that does not intersect any boundary surface (23), and randomly selecting a second jump point on the first maximum transfer

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cube; and, when the second jump point is located on the surface of any conductor or on any boundary surface (23), determining that a current random walk has been completed.

(57) 摘要: 一种用于寄生电容提取的随机行走方法、装置(100)和电子装置(200)。该方法包括: 将与集成电路版图的每个边界面(23)距离最近的导体作为边界导体(21); 根据边界导体(21)所对应的高斯面(22), 确定第一区域和第二区域; 在第一跳转点处于第二区域时, 以第一跳转点为中心构造不与任一边界面(23)发生相交的第一最大转移立方体, 在第一最大转移立方体上随机选取第二跳转点; 在第二跳转点处于任一导体的表面或者任一边界面(23)时, 确定当前随机行走已完成。