Study of the links between the Earth rotation and geophysical processes. – Lomonosov Moscow State University, Sternberg Astronomical Institute, Russia, 2019. – 302 pages.

The work is devoted to the consideration of geophysical processes that cause the motion of the pole and changes in the length of the day. Particular attention is paid to the Chandler wobble. The method of its extraction and geodesic excitation reconstruction is developed. Atmospheric and oceanic excitation functions are investigated in the Chandler frequency band. Using the Earth's gravity field data from GRACE satellites, the first coefficients of the gravitational potential decomposition are analysed in terms of the effect of the corresponding mass redistribution on the Earth's rotation. The classical theory of rotation of the Earth with a liquid external and solid inner core is given. On its basis, the Euler-Liouville equations are generalized to the case of the triaxial Earth with oceans. The work also provides statistical analysis of the Earth rotation parameters predictions. The relationships of the Earth's rotation and climate processes are discusses.

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地球自转与地球物理过程的联系研究， 俄罗斯联邦罗蒙诺索夫莫斯科国立大学斯特恩伯格天文研究所，2019，302页

这项研究致力于引起极移和日长变化的地球物理过程，尤其关注钱德勒晃动。提出了钱德勒晃动的提取和大地测量激发重建方法。在钱德勒频率段研究了大气和海洋激发函数。利用GRACE卫星提供的地球重力场数据，根据质量分布对地球自转的影响，分析了相应的引力位系数。给出了含外核和内核的地球自转的经典理论。在此基础上，欧拉-刘维尔方程被拓展到适用于含海洋的三轴地球。研究也提供地球自转参数预测的统计分析。研究还讨论了地球自转与气候过程的关系。

科学顾问：科里斯汀尔·毕让德巴黎天文台天文学家，尼科莱·斯德仁科夫数学物理博士