

Random walks on Arakelov class groups Boer, K. de

Citation

Boer, K. de. (2022, September 22). Random walks on Arakelov class groups. Retrieved from https://hdl.handle.net/1887/3463719

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from:https://hdl.handle.net/1887/3463719

Note: To cite this publication please use the final published version (if applicable).

RANDOM WALKS ON ARAKELOV CLASS GROUPS

The main topic of this PhD thesis is the Arakelov ray class group of a number field, an algebraic object that contains both the ideal class group structure and the unit group structure. The main result consists of the fact that certain specific random walks on the Arakelov ray class group result in a target point that is uniformly distributed on this group, under the assumption of an extended version of the Riemann Hypothesis. Almost all other results of this work are consequences of this fact.

Random Walks on Arakelov Class Groups

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