How did AMD beat Intel? (Abstract)

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For a long time, Intel was considered the top dog when it came to CPUs that are available to mere mortals. But since Dr. Lisa Su, AMD President and chief executive officer, turned the whole company upside down in 2014, AMD opened a new era of CPUs with their new Ryzen lineup.

In this research paper, the following chapters compare between the most important AMD and Intel processors since the turn of the decade. Benchmarks, energy efficiency and price are used for comparison. The latest and fastest AMD microarchitecture to date, the Zen 3 microarchitecture, is also discussed.

In addition, the most important innovations such as the 1Ghz barrier and the first, today very common, quad-core CPU from both CPU manufacturers are compared and explained.

The results show that AMD has built a huge head start over the past decade and restored the company's reputation. Intel will certainly have to develop many innovations through its competitor AMD. This rivalry further stimulates the development in the field of CPUs. We consumers are ultimately the winners. The 2020s will set many new high standards and thereby bring technology and computing power to a new level.