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Simina Branzei* (simina.branzei@gmail.com), West Lafayette, IN 47906, and **Dimitris Paparas** and **Nicholas Recker**. *Sorting and cake cutting in rounds*. Preliminary report.

We study the problem of sorting in rounds in a query model where we are given a vector x and each question is of the form: "Is $\text{rank}(x[i]) \leq k$?", where $k \in \{1, \dots, n\}$. We study sorting and selection in this model and show the bounds for sorting imply bounds for cake cutting in rounds. (Received September 01, 2020)