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**Exact Calculations for Ultracold Rotating Bose Gases**

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University of Calgary — Through the use of exact diagonalization, we  
have investigated general properties of harmonically trapped, rotating  
ultracold bose gases having both attractive and repulsive interactions.  
We have calculated the low energy spectrum for a small number of  
bosons and have used the similarities between fermions in a strong mag-  
netic field and bosons subjected to rotation in order to identify different  
bosonic fractional quantum states which may be used to perform topo-  
logical quantum computations.

- Prefer Oral Session  
 Prefer Poster Session

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