## Existence of time periodic solutions for the gSQG in bounded domains

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In this talk we study the existence of time-periodic vortex patches for the generalized surface quasi-geostrophic equation within a bounded domain. This construction is carried out for values of  $\gamma$  in the range of (1, 2). The resulting vortex patches possess a fixed vorticity and total flux, and they are located in the neighborhood of critical points that are non-degenerate for the Kirchhoff-Routh equation. This work is based on [2].

## References

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