

# Summary of findings

- We analysis the high-latitude  $\gamma$ -ray sky using Gaussian processes.
- We find significant emission from the Fermi bubbles, radio Loops I and IV, and a single additional region that has not been previously found.
- Emission from Loops I and IV:
  - No signature of the southern counterpart of Loop I in gamma-rays, not even at the lowest latitudes where X-ray emission is about as bright as that in the north
  - Loops I and IV are equally bright in  $\gamma$ -rays while they show strong variations in both radio and X-rays.
  - Our results point to an intermediate distance to the two loops, placing them above/beyond the gas-layer.

