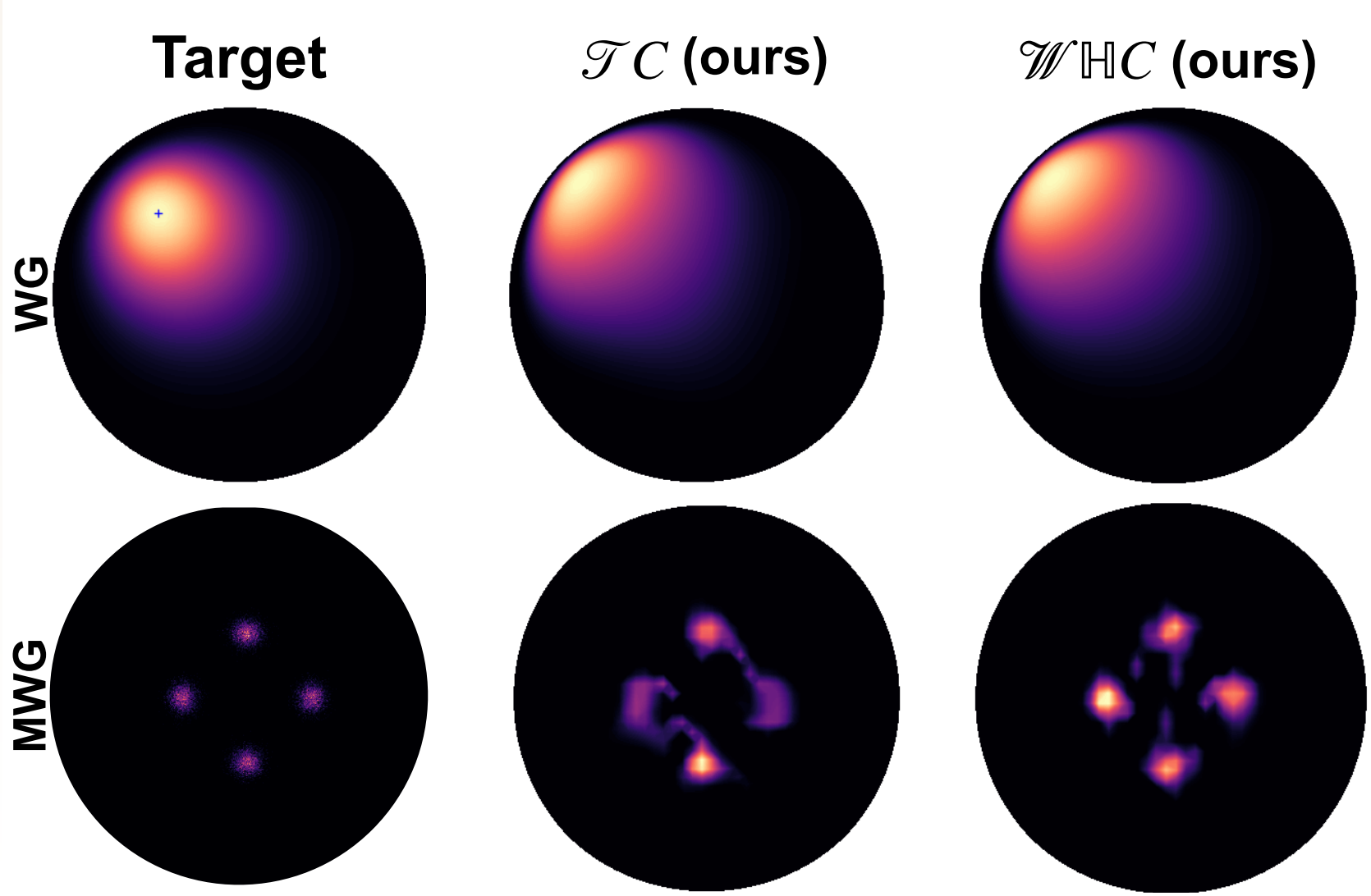
COMP760: Geometry and Generative Models

By Joey Bose and Prakash Panangaden

“We do Algebra because we have to, but we do Geometry because of love.”

Density Estimation on $\mathbb{P}_K^2$



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Course Outline

- Weeks 1-4: Lecture Style. Notes already Posted.
- Weeks 5-11: 1 hr Lecture followed by in class presentations.
- Weeks: 12-13: In class Project Presentation.
- Course website: https://joeybose.github.io/Blog/GenCourse

Preparing for Lectures

- Read the weekly lecture notes. In class discussion will go deeper than these notes.
- From week 5 onwards read all papers listed under core. It is ok if you don’t fully understand all details. Come to class with questions.
- Be active in asking questions during presentations and always keep a critical eye.

Grading

- 20% In class paper presentation.
- 30% Student project presentation.
- 50% Student project report.

Course Project

- Can be done individually, in pairs, or in rare cases teams of 3. Project Proposal (ungraded) due on week 6.
- Main goal is pick an interesting problem and attack it with a research eye.
- Reimplementing an existing paper is not enough. You must try something novel, even if it does not work out. The rationale and thought process for trying it matter more than the outcome.

Potential Course Outcomes

- Workshop paper at top tier conference.
- Submission of a full paper at a top tier conference.
- Insightful technical blogpost that sheds light on a non-trivial phenomenon or research direction.

Self-Assessment Quiz & Feedback

- There is a self-assessment quiz which you can use to determine your level of comfort entering the course.
  Link: https://github.com/joeybose/comp760_lecturenotes/blob/master/COMP760___Self_Assessment_Quiz.pdf

- Anonymous Feedback form on the course website. Link: https://forms.gle/g4xns6vizBsSKCq39