

Grid diagrams and contact geometry I

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This minicourse is a gentle introduction to grid diagrams and how they can be used to calculate knot Floer homology and approach problems in contact geometry. In the first lecture, we'll see how grid diagrams provide a unified approach to isotopy for smooth knots, Legendrian knots, transverse knots, and braids. If time permits, I'll discuss how Dynnikov and Prasolov's work helps with the classification of Legendrian knots in \mathbb{R}^3 (if not, I'll postpone this until the second lecture).