Orientation Response Properties of Inhibitory Cells in a Model of Cat Primary Visual Cortex
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Inhibitory Cells in a Model of Cat Primary Visual Cortex

- **General Model Description**
  - Correlation Based Intracortical Connectivity
  - Model Cortical RF

- **Effects of Synaptic Depression**
  - Mean Inhibitory Cell Firing Rate

- **Effects of Depression on Inhibitory Cell Tuning**
  - Normalized Firing Rate

- **Effects of Removing Feedback E->I Connections**
  - Effects of Removing Feedback E->I Connections

- **Temporal Frequency Tuning**
  - Effects of Removing Feedback E->I Connections

- **Inhibitory Cell Temporal Tuning**
  - Inhibitory Cell Temporal Tuning

**Experimental Comparisons**
- Temporal frequency tuning (inhibitory cells)
- Effects of removing feedback (E->I)
- Neuronal firing rate (E, I, E->I)
- Synaptic depression, AMPA and NMDA
- Experimental results and modeling

**Conclusions**
- Synaptic depression significantly affects the firing rate of inhibitory cells.
- Effects of removing feedback are considered in the model.
- Temporal frequency tuning is preserved in the model.
- Experimental results support the model predictions.

**Further Analysis**
- Analysis of inhibitory cell firing rates
- Effects of synaptic depression
- Comparison with experimental data
- Model validation using real-world data