Suggestions for talks:

October 31, 2001

- Algebraic geometry codes (up to 2 students).
- Zero error encoding and the entropy of graphs.
- Chinese remainder codes.
- Hardness of approximating VC dimension.
- Low density parity check codes for errors and belief propagation.
- Hardness of decoding problems including bounded diameter decoding.
- Linearity test and aspects of coding in PCPs.
- Combinatorial designs and codes.
- Properties of Reed-Muller codes.
- Hardness amplification - Implicit list decoding of Reed-Muller codes.
- List decodable expander codes.
- Applications of good list-decodable codes: noisy witnesses and membership comparable sets.
- Guessing secrets using codes.
- List decoding for finding smooth integers.