

ABSTRACT**CODING AND MODULATION FOR MULTIPLE DATA STREAMS IN A
COMMUNICATION SYSTEM**

Techniques for transmitting multiple data streams to a single receiver using a single code rate and different modulation schemes are described. Channel estimates are determined for the multiple data streams and used to select a single code rate and multiple modulation schemes for the multiple data streams. The system may support a set of code rates, and each code rate may be associated with a respective set of modulation schemes that may be used with that code rate. The single code rate for all data streams is selected from among the set of supported code rates, and the modulation scheme for each data stream is selected from among the set of modulation schemes associated with the single code rate. The multiple data streams are encoded in accordance with the single code rate. Each data stream is further modulated in accordance with the modulation scheme selected for that stream.

Figure 2