

## **Basic Parameters of Schubert cell codes**

Sudhir R. Ghorpade, Indian Institute of Technology – Bombay, Fernando Piñero \*, University of Puerto Rico at Ponce,

Schubert cells may be seen as open affine subsets of Schubert varieties. They also may be seen as closed projective subsets of the open affine subset of the Grassmannian. Affine Grassmann codes are the linear codes from the open affine subsets of the Grassmannian. In this work we consider Schubert cell codes as a projection of affine Grassmann codes. The dimension of the Schubert cell code is related to the number of special Rook arrangements one can fit on a Ferrers board. We determine the dimension of the linear codes as well as the codewords which correspond to minimum weight codewords.

Keywords: Schubert cells, Schubert varieties, Grassmannian, Linear codes, Coding Theory.