

Three lectures on quiver Grassmannians

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In this series of three 50-minutes-long lectures I will review the representation theoretic techniques to study geometrical aspects of quiver Grassmannians. Recall that a quiver Grassmannian $\text{Gr}_{\mathbf{e}}(M)$ is the set of subrepresentations of dimension vector \mathbf{e} of a quiver representation M . This is endowed with a natural structure of projective scheme. After reviewing generalities on quiver Grassmannians we will concentrate on the following three aspects:

1. Quiver Grassmannians and degenerate flag varieties;
2. cellular decomposition and property (S);
3. desingularization of quiver Grassmannians and orbit closures.

The material of the lectures is collected at the following webpage:

<http://www.sbai.uniroma1.it/~giovanni.cerulliirelli/ICRA2018.html>