

# **Seminário CEA FEL\***

**28 de Julho – 16:00 - sala 6.2.33**

## **Integral Graphs**

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**Abstract:**

A graph  $G$  is called integral if all eigenvalues of its adjacency matrix,  $A(G)$ , consist entirely of integers. The nullity of  $G$  is the nullity of  $A(G)$ , that is the multiplicity of 0 as an eigenvalue of  $A(G)$ . In this talk, we are concerned with integral trees. These objects are extremely rare and very difficult to find. We first present a short survey on integral graphs. We show that for any integer  $d > 1$ , there are infinitely many integral trees of diameter  $d$ . We will also show that for any integer  $k > 1$ , there are only finitely many integral trees with nullity  $k$ .

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