

# A SYMPLECTIC VIEW ON TORIC AND TROPICAL GEOMETRY

THOMAS BAIER

CENTRO DE MATEMÁTICA DA UNIVERSIDADE DO PORTO

In the first part of this talk, we review the basics of tropical geometry (that is, algebraic geometry over the tropical semifield, which turns out to be piecewise linear) and, in particular, the notion of an amoeba associated to a hypersurface in an algebraic torus. We then recall briefly definition and classification of symplectic toric manifolds by a special class of polytopes in Euclidean space.

Finally, we then describe how these two types of essentially combinatorial data, amoebas and moment polytopes, combine when one studies hypersurfaces in toric manifolds and their behaviour under deformation of toric complex structures.

This talk is based on joint work with Carlos Florentino, José Mourão and João P. Nunes (IST Lisboa).