Inclusion relations and multipliers between Toeplitz kernels and model spaces

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If the symbol g of a Toeplitz operator has a L^2-factorisation, or if it is contained in a model space, under certain conditions, it is possible to obtain a representation for the kernel of the form

$$\ker T_g = wK_\theta. \tag{1}$$

But what if neither is the case? In this talk we discuss inclusion relations between Toeplitz kernels and model spaces, and a generalisation of the L^2-factorisation for the symbol that gives us a representation (1). We will also see some examples where we can use the new factorisation to obtain an isometric multiplier.

Based on joint work with Cristina Câmara and Cristina Diogo.