

# SEMINÁRIO DE GEOMETRIA

**Dia 15 Março (sexta-feira), às 13h30, sala 6.2.33**

On the left ideals  $\mathcal{K}$  and  $\tilde{\mathcal{K}}$  of the Weyl algebra  $\mathbb{C}[s_1, \dots, s_k] \langle \partial_1, \dots, \partial_k \rangle$  which annihilate respectively all trace functions and all trace forms.

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**Abstract:**

This is a survey of a work in progress with Teresa Monteiro Fernandès.  
For  $f \in \mathbb{C}[z]$  define the trace function

$$\psi(s) := \sum_{j=1}^k f(z_j)$$

and the trace form

$$\tilde{\psi}(s) = \sum_{j=1}^k \frac{f(z_j)}{P'_s(z_j)} ds_1 \wedge \dots \wedge ds_k$$

where  $z_1, \dots, z_k$  are the roots of the polynomial  $P_s(z) := z^k + \sum_{h=1}^k (-1)^h s_h z^{k-h}$ .  
We shall discuss the ideals  $\mathcal{K}$  and  $\tilde{\mathcal{K}}$  in the Weyl algebra  $\mathbb{C}[s_1, \dots, s_k] \langle \partial_1, \dots, \partial_k \rangle$  which annihilate respectively all trace functions and all trace forms.

