1144-41-149 **Uwe Kaehler*** (ukaehler@ua.pt), Departamento de Matematica, Universidade de Aveiro, Aveiro, Portugal. *Interpolation of monogenic functions based on reproducing kernels.*

One of the principal differences between complex and hypercomplex analysis is the lack of the Blaschke products. While there are several attempts to generalize Blaschke products to higher dimensions none can provide all the properties of classic Blaschke products. This is particularly evident in the study of interpolation of monogenic functions. While in the complex case Lagrange interpolation leads more or less automatically to Blaschke products this does not happen in higher dimensions due to the two-fold fact that neither Möbius transformations are monogenic, nor monogenicity is preserved under multiplication. One way out of this problem is to consider interpolation via reproducing kernels, like the monogenic Bergman kernel in the case of the unit ball. But to do this effectively we need to take into account the underlying geometry. In this talk we will show who the proper geometrical choices will allow us to provide density theorems and provide efficient practical algorithms. (Received August 22, 2018)