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Functional Programming in Scientific Computing DOUGLAS MOORE, Baylor University — We look at the typical design goals of scientific/mathematical computing and consider ways in which a functional programming style can be used to achieve them. Programming examples for various domain-specific problems, e.g. constructing the root structure of semi-simple lie algebras, are presented in various popular languages such as C/C++ and MATLAB as well as the functional language Haskell for contrast.

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