Hypercyclic operators on spaces of symmetric functions Zoryana MOZHYROVSKA (LVIV Commercial Academy — Ukraine)

The study of hypercyclic operators started after Birkhoff's result [1] that the operator  $T_a$  of composition with translation  $x \mapsto x + a$ ,  $a \neq 0$ ,  $T_a: f(x) \mapsto f(x+a)$  is hypercyclic in space of entire functions  $H(\mathbb{C})$  on the complex plane  $\mathbb{C}$ . G. Godefroy and J. Shapiro (see [2]) proved a generalization of Birkhoff's theorem for the case  $H(\mathbb{C}^n)$  and described all hypercyclic composition operators that commute with translation operator. Our purpose is to construct the hypercyclic operators on spaces of symmetric functions.

## References

[1] G. D. Birkhoff, *Démonstration d'un théorème élémentaire sur les fonctions entières*, C. R. Acad. Sci. Paris **189** (1929), 473–475.

[2] G. Godefroy and J.H. Shapiro, *Operators with dense, invariant, cyclic vector manifolds*, J. Funct. Anal **98** (1991), 229–269.

[3] M. Gonzalez, R. Gonzalo and J. Jaramillo, Symmetric polynomials on rearrangement invariant function spaces, Jour. London Math. Soc. **59** (1999), 681–697.

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