Study of the growth function of complex n-valued dynamics

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This talk answers the question of V.M. Buchstaber about the growth function of a particular complex n-valued group. This question is closely related to discrete integrable systems. In this talk, we will give a formula for the growth function in the case when n is prime. In addition, we will prove a polynomial asymptotic estimate for the growth function in the general case. There are also some interesting connections with simple symmetric n-Venn diagrams. Finally, we will pose new problems and hypotheses about growth functions.

References

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