

SOME PROPERTIES OF GENERALIZED MÖBIUS-LISTING'S BODIES

Ilia Tavkheldze*, Paolo Emilio Ricci**, Mamanti Rogava***, Johan Gielis****

*Iv Javakhishvili state University, Faculty Exact and Natural sciences, Tbilisi, Georgia

Ilia.tavkheldze@tsu.ge

** International Telematic University “UniNettuno”,- Rome, Italy

paoloemilioricci@gmail.com

** „Neoclinic“, Tbilisi, Georgia

mamantirogava@mail.ru

**** University of Antwerpen, Departement of Bio-ingeniering, Antwerpen, Belgium

johan.gielis@uantwerpen.be

Based on analytical representation, independent elements of the bulky links are estimated, which appear after one full cutting of Generalized Möbius-Listing's Bodies, with radial cross-section – Regular m angular polygon and established:

1. minimal numbers of elements;
2. maximal numbers of elements;
3. the total number of fundamentally different variants.

We show possibility of separation of these displacements into the “Elementary permutations” [1-3].

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References

- [1] Tavkheldze I., Ricci P.E., Rendiconti Accademia Nazionale dell Scienze detta dei XL Memorie di Matematica a Applicazioni , 124⁰ vol. XXX, fasc.1, pag. 191-212., (2006).
- [2] Tavkheldze I., Cassisa C., Gielis J. and Ricci P.E., About “Bulky” Links, Generated by Generalized Möbius-Listing's bodies GML^n , Rendiconti Lincei Mat. Appl. 24, pp.11-38; (2013).
- [3] Tavkheldze I. About structure and some geometric characteristic of the bulk links which appear after cutting of generalized mobius-listings bodies, Proceedings of I. Vekua Institute of Applied Mathematics Vol. 65, (2015).