Application of rules of local areas for calculating pressure dulled bodies

©V.P. Kotenev [1,2], A.Yu. Dubrovina [1]

[1] JSC "MIC "NPO Mashinostroenia", Moscow region, Reutov-town, 143966, Russia
[2] Bauman Moscow State Technical University, Moscow. 105005, Russia

When doing applied calculations by the time-dependent setting method, it is necessary to define the initial solution, which should be approximated to the accurate solution as much as possible, to reduce the computation time and obtain reliable results. This article is using the local sphere rule, to estimate the pressure on the body surface. The results have shown that in some cases this method produces more accurate data than those given by the Newton's formula.

Kotenev V.P. (b.1956) graduated from Lomonosov Moscow State University in 1978. Dr. Sci. (Eng.), Head of Research Department of JSC "MIC "NPO Mashinostroenia". Author of about 40 publication in the field of applied mathematics, numerical and analytical methods to investigate gas streams near by the surface of flying vehicles. e-mail: kotvp@mail.ru

Dubrovina A.Yu. (b. 1988) graduated from Bauman Moscow State Technical University in 2011. Engineer in Research Department of JSC "MIC "NPO Mashinostroenia". Graduate student of Bauman Moscow State Technical University. e-mail: a.u.dubrovina@gmail.com