Stokesian flow around a slip-particle of an arbitrary shape
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relations for a rigid slightly deformed sphere in an unbounded Stoksean flow are gen-
eralized to the case where the surrounding fluid may slip at the surface of the particle
(e.g. aerosol particle). To the first order in the small parameter characterizing the
deformation, explicit expressions are derived for the hydrodynamic force and torque
on the particle. It is demonstrated that these expressions can be derived solely from
a knowledge of the solutions of the Stokes equations for the cases where the sphere
is held stationary in a flow field which is uniform or pure rotational, respectively.
The resulting formulas and flow disturbances are compared with the classical results
for a no-slip rigid spherical particle and an axisymmetrical slip – surface particle.

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Date submitted: 09 Aug 2005

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