First of all, thank you for the interest in our manuscript and for your criticisms. On behalf of my co-authors I will reply point by point to your comments.

(1) "For a stationary body in a moving flow Lift force is the force component acting normal to the mean direction of the undisturbed flow "(Vickery, 1966. Fluctuating lift and drag on a long cylinder of square cross-section in a smooth and in a turbulent stream. Journal of Fluid Mechanics, 25, 03, pp 481- 494). Following this definition, the authors think that the hydrodynamic force component, which is directed vertically in our case, cannot be neglected in a full 3D flow around a human body.
Lift force exists also for partly submerged objects as argued by Malavasi and Guadagnini (2003, Hydrodynamic Loading on River Bridges. Journal of Hydraulic Engineering, Vol. 129, No. 11.) who measured drag and lift forces acting on a partly submerged bridge deck through experimental tests. Arslan at al. (2013, Turbulent Flow Around a Semi-Submerged Rectangular Cylinder Journal of Offshore Mechanics and Arctic Engineering, Vol. 135) showed the effect on drag and lift forces of different submergence levels (accounting for partly submerged conditions) on a rectangular cylinder. Arslan et al (2013) used a CFD model to estimate drag and lift forces, which reproduced accurately the experimental data used for validation, where the forces were measured through a dynamometer. Moreover, also Milanesi et al. (2015, A conceptual model of people's vulnerability to floods. Water Resources Research, 51, doi:10.1002/2014WR016172.) in his conceptual model on people's vulnerability to floods accounted for Lift force.

(2) $\rho_p=\rho$ is a simplifying assumption which is conservative and thus in favour of stability. If we consider $\rho_p=1062$ kg/m^3 and we do not make any assumption of human body density, we obtain the following mobility parameter

$$\theta_P = \frac{2d}{H_P} \cdot \frac{\frac{\rho_p}{\rho} \cdot H_p - H}{H}$$

It differs from eq.11 for a constant, which is the ratio between the human body density and water density $\frac{\rho_p}{\rho} = 1.062$. From the point of view of the dimensional analysis nothing changes, but the height of the subject appears increased of about the 6%. If the new mobility parameter is calculated for the experimental data the regression curve of Fig. 1 will be shifted, thus it will have a different representative equation. Moreover, for the range of submergence levels and flow velocities tested in the experiments and reproduced numerically in the manuscript, hydrodynamic forces (especially drag force) are more significant the static forces, thus toppling or sliding prevail over floating. This discussion can be added in the final version of the manuscript to clarify the consequences of our hypothesis.

(3) The authors do not agree with the referee on this point. The selection of the reference area for the hydrodynamic forces is arbitrary, so the use of the wetted area is optional. Drag and lift coefficients in the form of Eqs. 18, 19 are derived from dimensional analysis and the reference area is an arbitrary scale factor with dimensions of $(length)^2$. Thus, wetted area and full frontal area are commonly used in engineering practice, see for instance Fox and McDonald, 1978 (Introduction to Fluid Mechanics, 2nd ed. John Wiley & Sons, N.Y. 684 pp.), Hoerner, 1965 (Fluid dynamic drag, Hoerner Fluid Dynamics ISBN-10: 9993623938), Bertin and Smith, 1979 (Aerodynamics for Engineers, Prentice-Hall, New Jersey, 410pp). Obviously, the choice of the reference area significantly affects the magnitude of the force coefficients but not the forces and the essential is the consistency of the definitions between output of the numerical model and the mobility parameter.

(4) The dimensionless mobility parameter θp actually indicates that the stability of a human body in floodwaters is related to relative submergence and Froude number. The mass does not appear in the parameter definition because with the dimensional analysis the mass becomes a density ρ_p. All human subjects tested in the experiments had different mass/weight but had the same density and the dimensional analysis allows identifying dimensionless combinations of the variables of the system for a given set of independent fundamental units. Also if we do not assume $\rho_p=\rho$ (answer to point 2) we obtain a constant factor 1.062, which virtually increases the height. The height can be also seen as a sort of ‘proxy’ of the weight for a mesomorphic individual since the mass is the product of body density and body volume (and the body volume depends on the height of the subject).