



## **The effect of snow entrainment on avalanche dynamics**

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The entrainment of snow plays an important role in snow avalanche dynamics. Still the mechanism of snow entrainment by avalanches and the method to include this effect into mathematical models are still not fully clear though different models have been proposed. In this paper the model recently proposed by D. Issler is investigated analytically and numerically. Some asymptotic formulas are proposed for the entrainment rate and change in velocity profile in unsteady motion of an avalanche down a homogeneous slope with constant slope angle.