



The recent strong shrinkage of a high elevation glacier, Changri Nup (Nepal, Himalaya): eleven years of measurements

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Long and continuous measurements of terminus variations of the Himalayan glaciers are very rare because of their difficult locations and of the needed logistical efforts. Since 1994 up to now a group of Italian researchers collected data about the terminus fluctuations and the geometry changes of a high elevation glacier, Changri Nup, at the base of Mount Everest in the Sagarmatha National Park, Nepal, Himalaya. Since 1994 classical measurements (by theodolite) of the position of the debris free glacier terminus, located at the altitude of 5400 meters, were carried on. Since 1998 until 2005 a GPS-RTK approach was applied to survey the retreat of the glacier front. The eleven years of measurements of terminus position by GPS in RTK technique highlighted the continuous retreat of the glacier snout (-140 m in the whole), moreover the glacier volume changes and the snout morphology variations were calculated for the period 2004-2005 by laser scanner.

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