Open Seminar Series Geoscience & Remote Sensing

Near-surface climate of glaciers and ice sheets

Greenland Ice Reflectivity, June-August 2000-2014

76

74

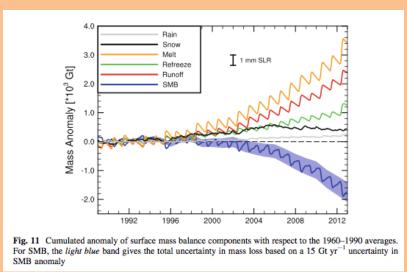
70

68

2000 2002 2004 2006 2008 2010 2012 2014

Year

Stefan Ligtenberg, UU November 12, 2015 12.40 – 13.30 CiTG room F





In the polar regions, the effects of climate change are expected to be largest and have the biggest impact in the near-future. This amplification is caused by a number of positive feedback mechanisms in the near-surface climate, more specifically in the energy balance of a snow or ice surface. To understand the current changes in and predict future behaviour of - the polar regions, we need to understand how the snow/ice surface influences the atmosphere, and vice versa. Automatic weather station observations are used to monitor these changes, while results of a climate model or firn model are used to scale to effects to ice-sheet scales.