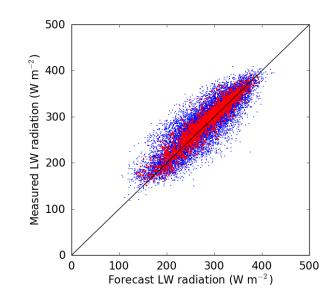
## A 7-year dataset for driving and evaluating snow models at an arctic site (Sodankylä, Finland)

Richard Essery, Anna Kontu, Juha Lemmetyinen, Marie Dumont and Cécile B Ménard

## Supplementary figures

**Figure S1.** Scatter plot and statistics comparing in situ measurements and ERA-Interim forecasts of longwave radiation averaged over periods of 3 hours (blue dots) and a day (red dots).



Period	Bias (W m <sup>-2</sup> )	Root mean square error (W m <sup>-2</sup> )	Correlation
3 hours	-5.1	26.7	0.88
24 hours	-5.1	16.9	0.94

**Figure S2.** Profiles of snow density from manual measurements (black dots), dielectric measurements (white dots) and Crocus simulations (lines).

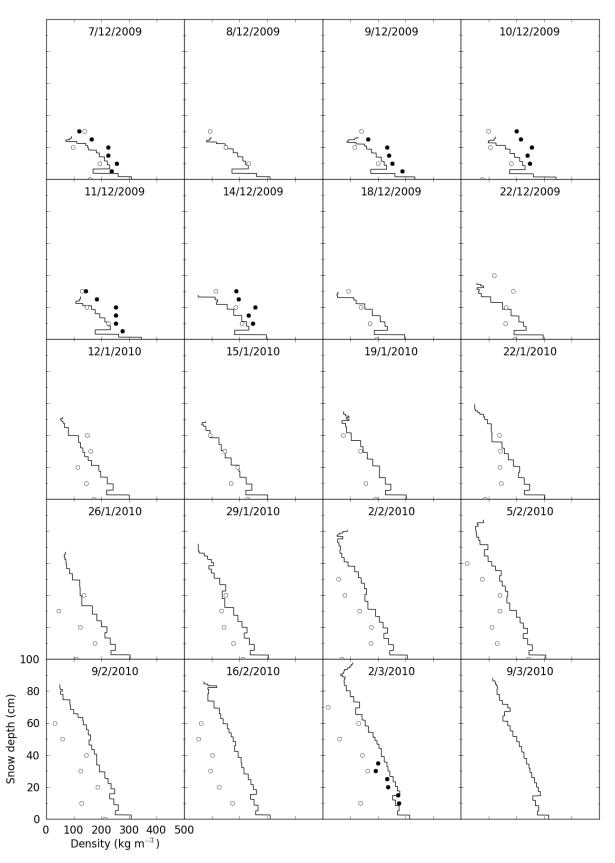


Figure S2. Continued

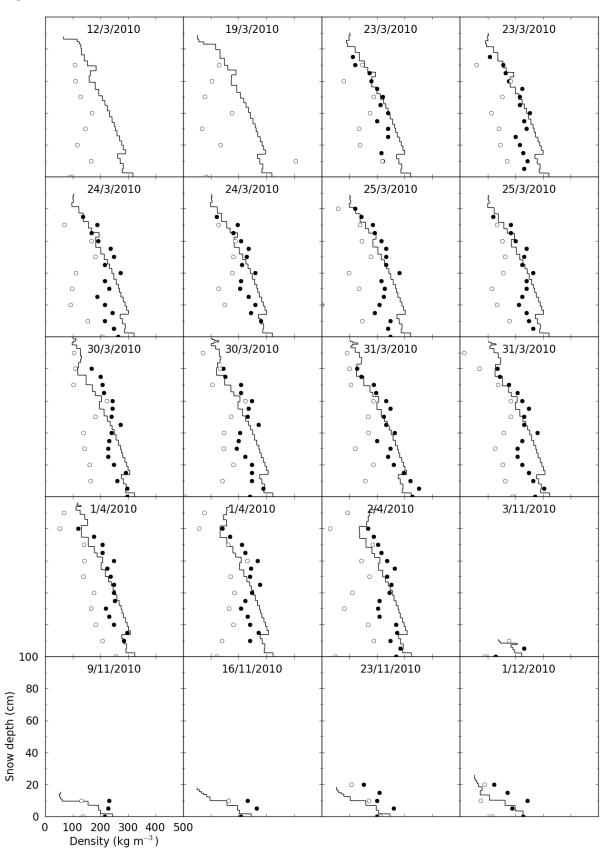


Figure S2. Continued

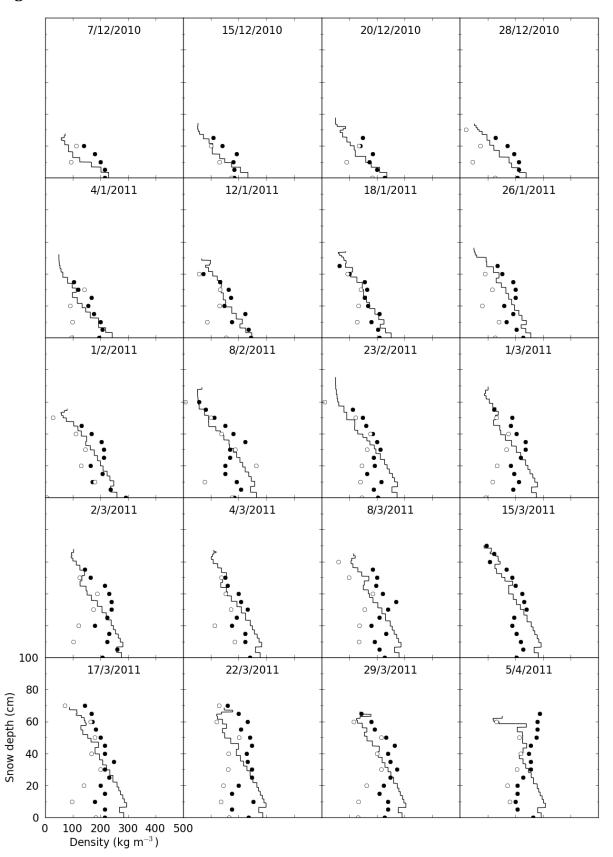


Figure S2. Continued

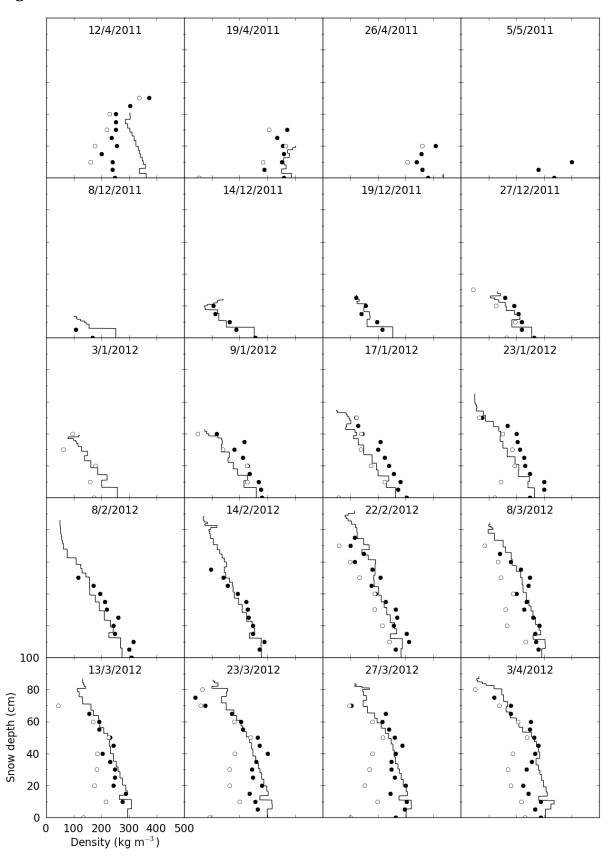


Figure S2. Continued

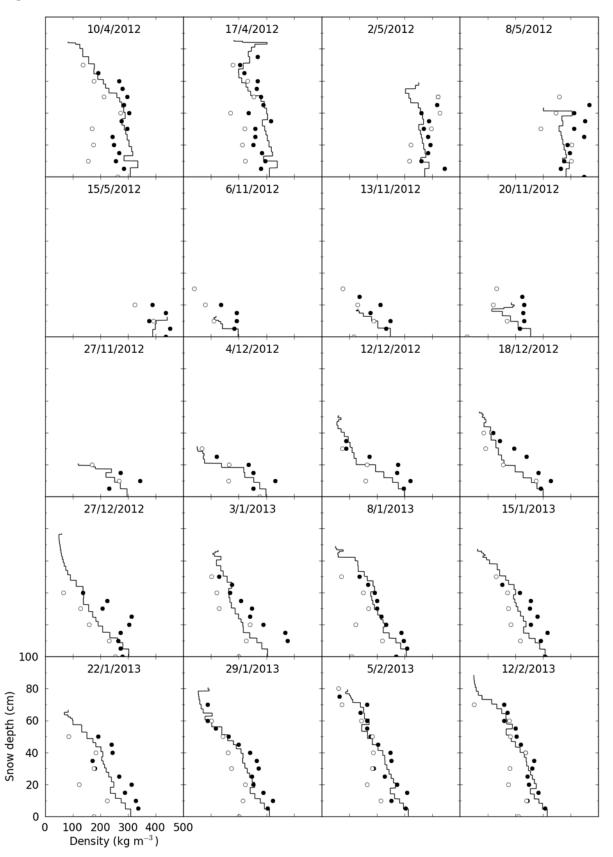


Figure S2. Continued

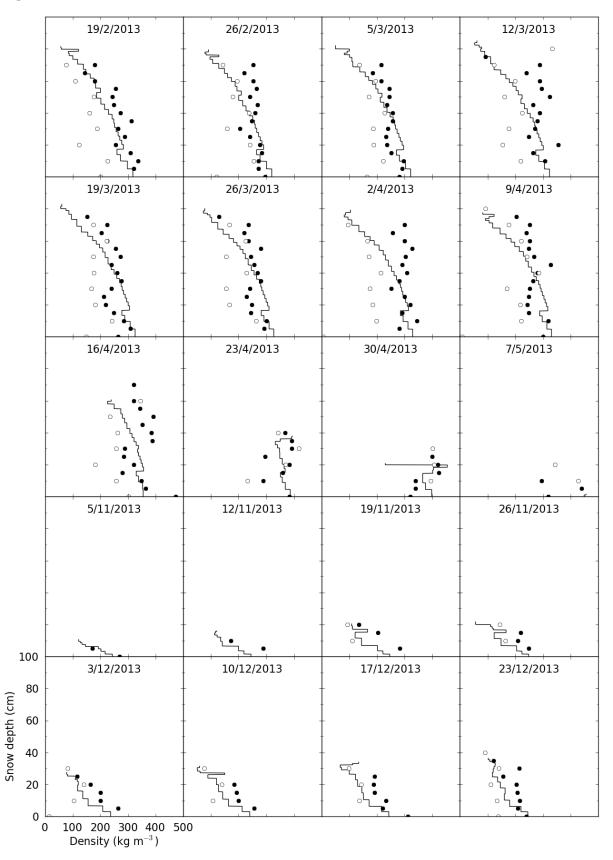
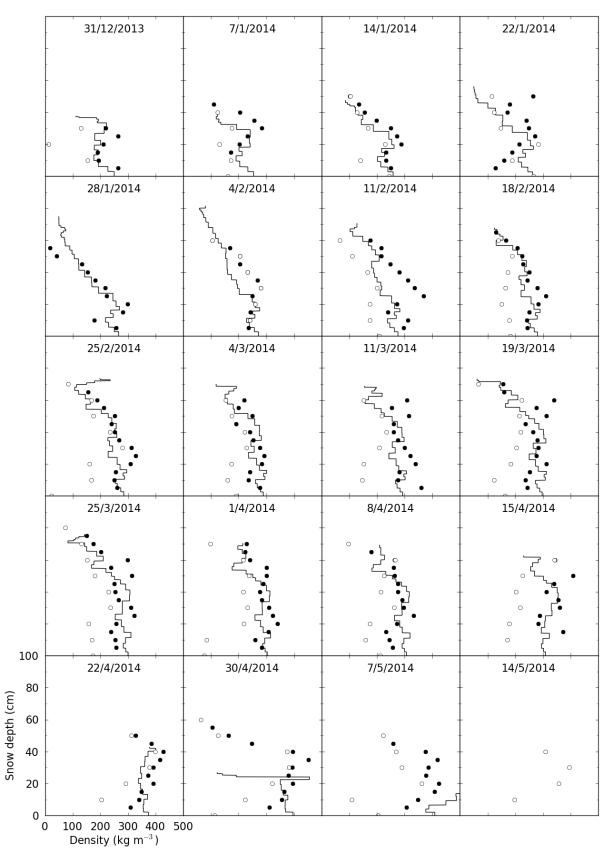


Figure S2. Continued



7/12/2009 8/12/2009 9/12/2009 10/12/2009 11/12/2009 14/12/2009 18/12/2009 22/12/2009 12/1/2010 15/1/2010 19/1/2010 22/1/2010 26/1/2010 29/1/2010 2/2/2010 5/2/2010 100 2/3/2010 9/2/2010 16/2/2010 9/3/2010 80 Snow depth (cm) 60 40 20 0 └ -30 -20 -10Temperature (° C) 0

**Figure S1.** Profiles of snow density from manual measurements (black dots), thermistors (white dots) and Crocus simulations (lines).

Figure S1. Continued

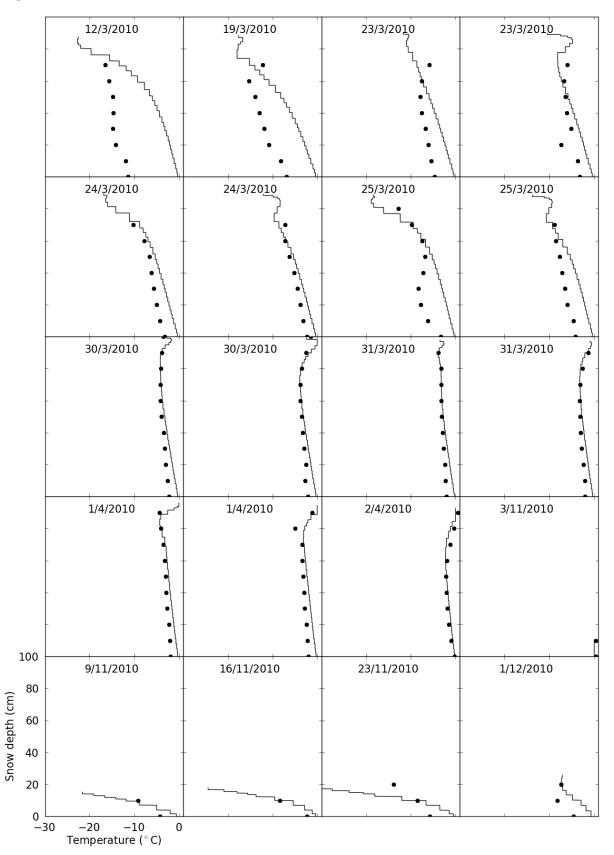


Figure S1. Continued

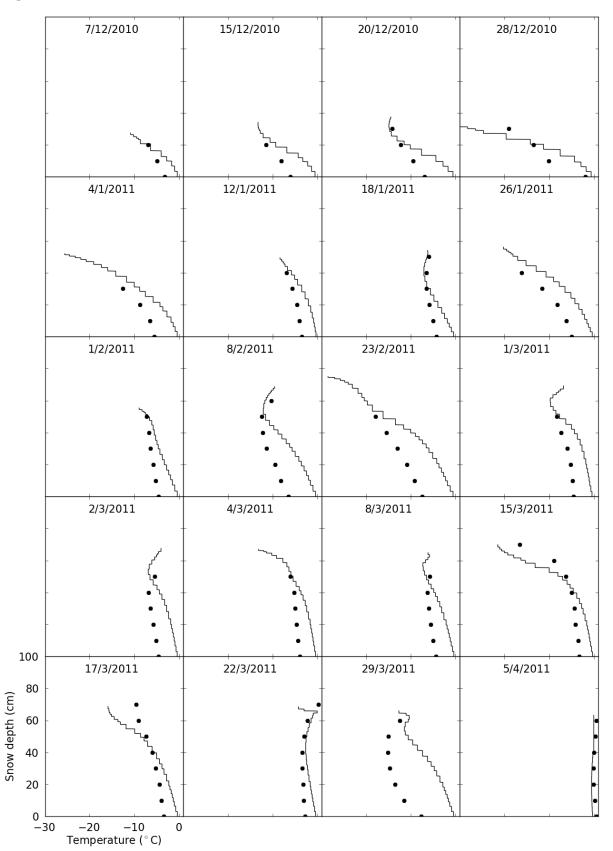


Figure S1. Continued

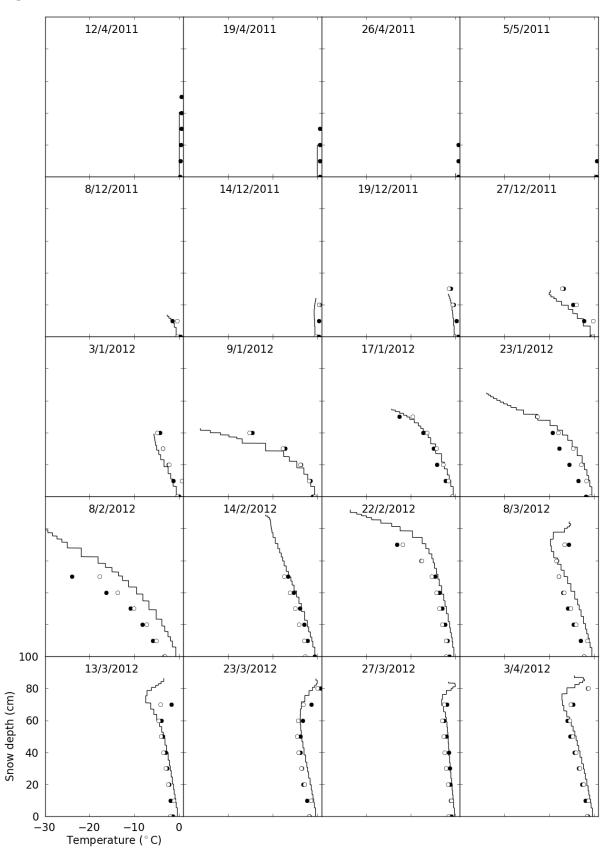


Figure S1. Continued

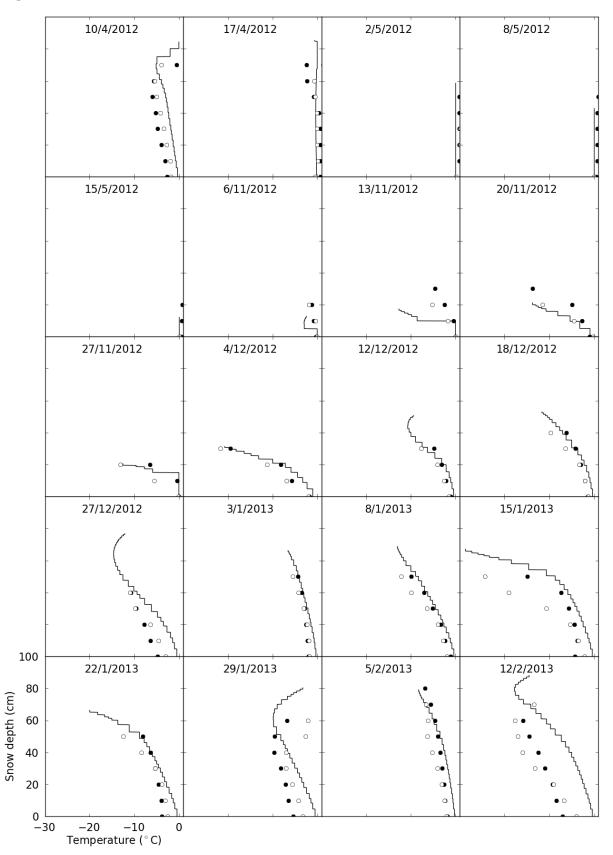


Figure S1. Continued

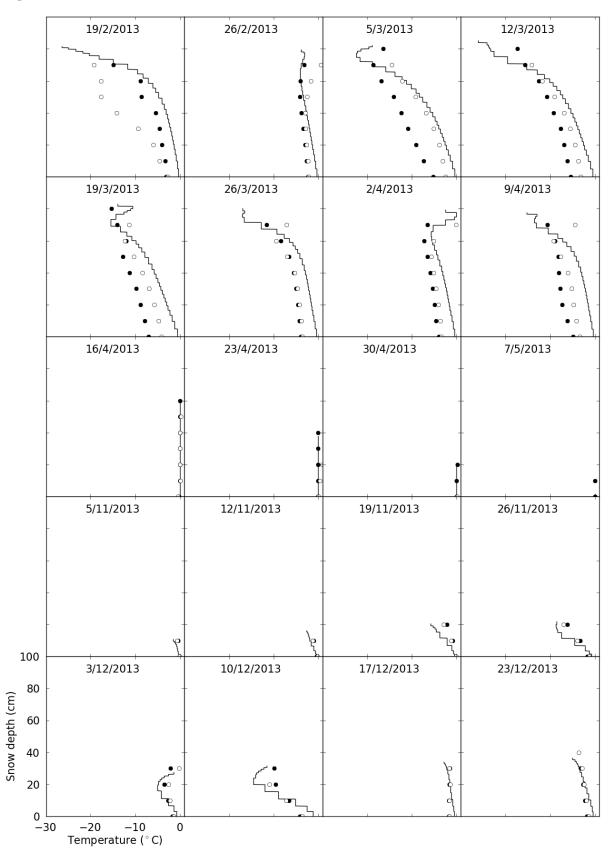


Figure S1. Continued

