Table 1. Additional 9 test sites information.

	Site	latitude	longitude	Altitude (m a.s.l)	ERA_ height (m a.s.l)	Time seires
Group 1	Sion	46.22	7.33	482	1408.0	2002-2004
	Fey	46.19	7.27	737		
	Les Diablerets	46.33	7.20	2966		
Group 2	Engelberg	46.82	8.41	1036	1431.6	1994-2010
	Gütsch ob Andermatt	46.65	8.62	2287		
	Titlis	46.77	8.43	3040		
Group 3	Scuol	46.79	10.28	1304	1818.1	1999-2010
	Buffalora	46.65	10.27	1968		
	Naluns / Schlivera	46.82	10.26	2400		

Table 2 shows the comparison of the ERA-Interim 2m temperature with 3-hourly and daily data of the Group 1-3 stations. The significant differences between measurements and ERA-Interim 2m temperature are found for higher elevated stations since the altitude gaps between sites' elevation and ERA model heights.

Table 2. Comparison of the ERA-Interim 2m temperature with 3-hourly and daily data of the Group 1-3 stations. NSE, RMSE and MAE in °C are listed.

Group 1	**SIO**			**FEY**			**DIA**		
	NSE	RMSE	MAE	NSE	RMSE	MAE	NSE	RMSE	MAE
T_{3h}	0.50	6.20	5.76	0.48	5.77	5.32	-0.79	8.61	7.78
T_d	0.43	6.00	5.74	0.47	5.51	5.30	-0.74	8.20	7.59
Group 2	**ENG**			**GUE**			**TIT**		
	NSE	RMSE	MAE	NSE	RMSE	MAE	NSE	RMSE	MAE
T_{3h}	0.84	3.15	2.53	0.50	4.96	4.40	-0.93	9.41	8.65
T_d	0.87	2.69	2.22	0.57	4.49	4.14	-0.88	9.00	8.51
Group 3	**SCU**			**BUF**			**NAS**		
	NSE	RMSE	MAE	NSE	RMSE	MAE	NSE	RMSE	MAE
T_{3h}	0.78	4.15	3.60	0.87	3.44	2.49	0.80	3.35	2.78
T_d	0.78	3.77	3.49	0.91	2.52	1.83	0.86	2.73	2.39

Table 3-5 shows the comparison of the measurements with 3-hourly and daily data of the downscaled data, NSE, RMSE and MAE are listed separately. The similar conclusion can be found, Method I is not appropriate for higher elevated stations such as DIA and TIT station. Method II works well for lower stations but is limited because it depends on the two large-elevation-difference stations. Method III and Method IV significantly improved the results when compared to measured data. The additional test indicated that our approach is not limited and conditioned in the specific region.

Table 3. Comparison of the measurements with 3-hourly and daily data of the downscaled data. The NSEs are listed.

NSE	**STN**	**Method I**		**Method II**		**Method III**		**Method IV**	
		3-hourly	daily	3-hourly	daily	3-hourly	daily	3-hourly	daily
Group 1	SIO	0.92	0.94	0.94	0.96	0.92	0.94	0.93	0.95
	FEY	0.90	0.93	0.83	0.89	0.87	0.92	0.90	0.94
	DIA	0.46	0.60	0.90	0.94	0.89	0.92	0.90	0.93
Group 2	ENG	0.89	0.93	0.92	0.96	0.90	0.94	0.90	0.94
	GUE	0.78	0.86	0.89	0.95	0.95	0.98	0.95	0.98
	TIT	0.56	0.70	0.89	0.95	0.92	0.95	0.92	0.95
Group 3	SCU	0.94	0.97	0.95	0.97	0.94	0.97	0.93	0.96
	BUF	0.89	0.93	0.86	0.92	0.89	0.93	0.89	0.94
	NAS	0.79	0.85	0.93	0.96	0.96	0.98	0.96	0.98

Table 4. Comparison of the measurements with 3-hourly and daily data of the downscaled data. The RMSEs are listed.

RMSE	**STN**	**Method I**		**Method II**		**Method III**		**Method IV**	
		3-hourly	daily	3-hourly	daily	3-hourly	daily	3-hourly	daily
Group 1	SIO	2.47	1.92	2.03	1.56	2.45	1.90	2.32	1.74
	FEY	2.60	1.94	3.21	2.46	2.88	2.18	2.55	1.83
	DIA	4.74	3.91	2.03	1.56	2.13	1.79	2.04	1.62
Group 2	ENG	2.60	2.02	2.19	1.53	2.51	1.82	2.48	1.85
	GUE	3.33	2.57	2.35	1.59	1.54	1.01	1.50	0.96
	TIT	4.50	3.57	2.19	1.53	1.92	1.48	1.94	1.51
Group 3	SCU	2.26	1.43	2.00	1.51	2.23	1.49	2.38	1.58
	BUF	3.21	2.21	3.51	2.43	3.22	2.18	3.16	2.14
	NAS	3.45	2.85	2.00	1.51	1.47	0.99	1.51	0.95

Table 5. Comparison of the measurements with 3-hourly and daily data of the downscaled data. The MAEs are listed.

MAE	**STN**	**Method I**	**Method II**	**Method III**	**Method IV**

		3-hourly	daily	3-hourly	daily	3-hourly	daily	3-hourly	daily
Group 1	SIO	1.98	1.54	1.52	1.15	1.89	1.46	1.81	1.35
	FEY	2.00	1.47	2.46	1.90	2.24	1.64	1.99	1.40
	DIA	3.68	3.26	1.52	1.15	1.31	1.02	1.25	0.86
Group 2	ENG	2.01	1.61	1.67	1.18	1.89	1.38	1.86	1.41
	GUE	2.52	2.05	1.78	1.19	1.18	0.77	1.16	0.74
	TIT	3.44	2.89	1.67	1.18	1.18	0.88	1.24	0.97
Group 3	SCU	1.80	1.14	1.57	1.23	1.75	1.18	1.87	1.23
	BUF	2.46	1.59	2.67	1.72	2.46	1.57	2.42	1.55
	NAS	2.66	2.34	1.57	1.23	1.10	0.78	1.13	0.75