时空三极环境大数据平台

**The ice storage in the Upper Indus River basin using Ground Penetrating Radar (GPR) and Glacier Bed Topography version2 modeling**

英文标题：The ice storage in the Upper Indus River basin using Ground Penetrating Radar (GPR) and Glacier Bed Topography version2 modeling

1、摘要

1) These data main included the GPR-surveyed ice thickness of six typical various-sized glaciers in 2016-2018; the GlabTop2-modeled ice thickness of the entire UIB sub-basins, discharge data of the hydrological stations, and related raw & derived data.
2) Data sources and processing methods: We compared the plots and profiles of GPR-surveyed ice bed elevation with the GlabTop2-simulated results and selected the optimal parametric scheme, then simulated the ice thickness of the whole UIB basin and assessed its hydrological effect. These processed results were stored as tables and tif format，
3) Data quality description: The simulated ice thickness has a spatial resolution of 30 m, and has been verified by the GPR-surveyed ice thickness for the NSE values were above 0.9. The maximum error of the GPR-measured data was ± 2.4 m, within the quoted glacier error at ± 5%.
4) Synthesizing knowledge of the ice thickness and ice reserves provides critical information for water resources management and regional glacial scientific research, it is also essential for several other fields of glaciology, including hydrological effect, regional climate modeling, and assessment of glacier hazards.

2、关键词

主题关键词：冰川厚度,地表水,流域特征,冰储量,冰川编目,冰川（含冰盖）
学科关键词：陆地表层,冰冻圈
地点关键词：The upper Indus river basin
时间关键词：GPR-surveyed ice thicnkness (2016-2018), GlabTop2-simulated ice thickness (2000)

3、数据细节

1.比例尺：None

2.投影：UTM

3.文件大小：888.0MB

4.数据格式：None

4、空间范围

|  |  |  |
| --- | --- | --- |
| - | 北：37.0 | - |
| 西：73.0 | - | 东：82.0 |
| - | 南：31.0 | - |

5、时间范围None--None

6、引用方式

数据的引用:

张寅生. The ice storage in the Upper Indus River basin using Ground Penetrating Radar (GPR) and Glacier Bed Topography version2 modeling. 时空三极环境大数据平台, DOI:10.11888/Glacio.tpdc.270902, CSTR:18406.11.Glacio.tpdc.270902, 2020.[ZHANG Yinsheng. . A Big Earth Data Platform for Three Poles, DOI:10.11888/Glacio.tpdc.270902, CSTR:18406.11.Glacio.tpdc.270902, 2020]

文章的引用:

7、资助项目信息

8、数据资源提供者

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