

# Offene Wissenschaft: Publikation von Forschungsdaten / Open Access für wissenschaftliche Texte

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Deutsches GeoForschungsZentrum GFZ

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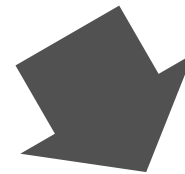
15:15 – 16:45: Publikation von Forschungsdaten

16:45 – 17:00: Pause

17:00 – 17:30: Open Access für wissenschaftliche Texte



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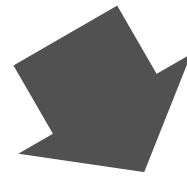


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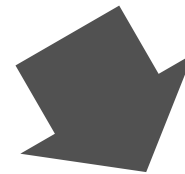
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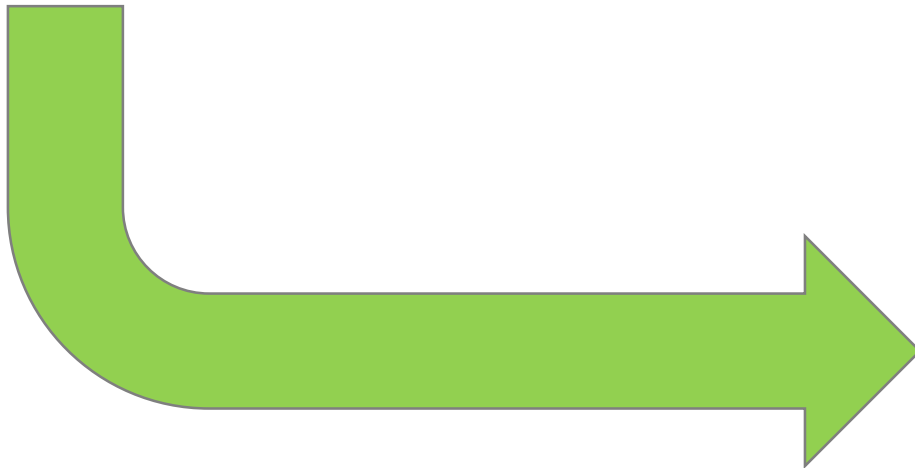


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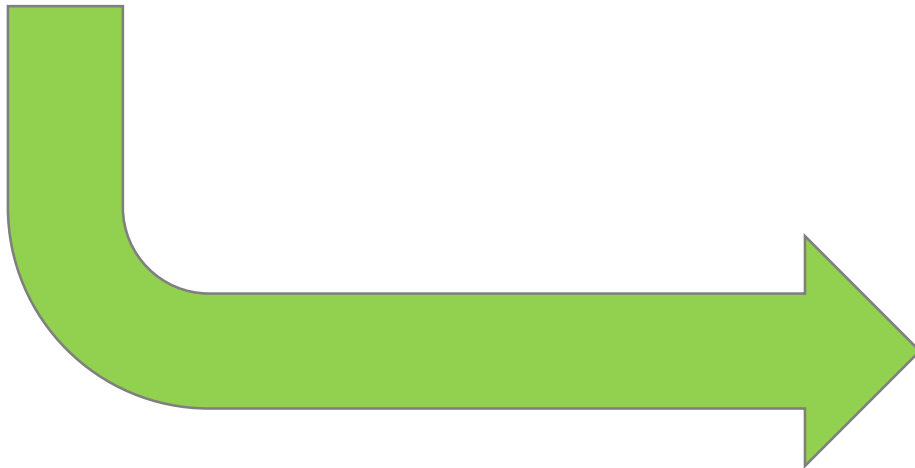
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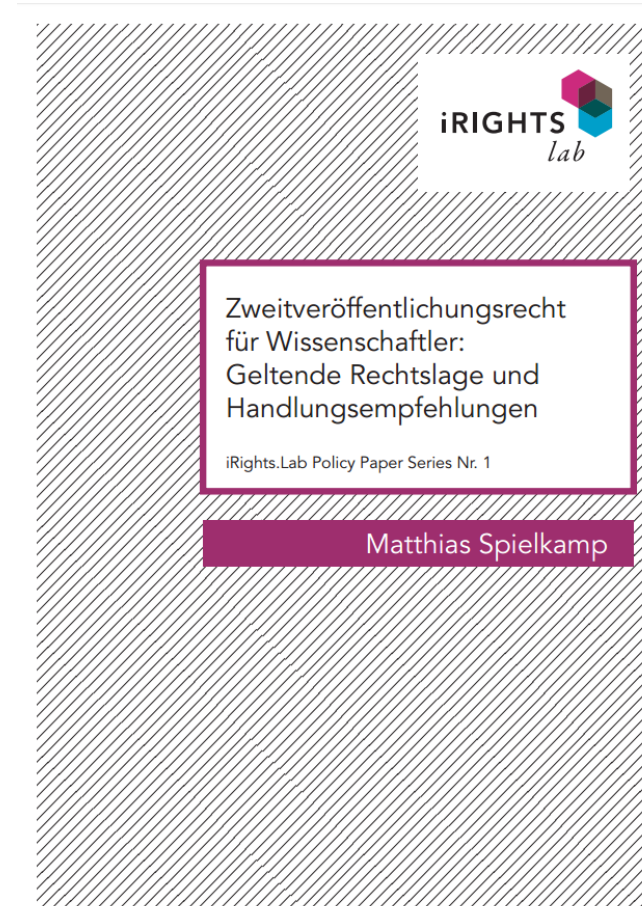
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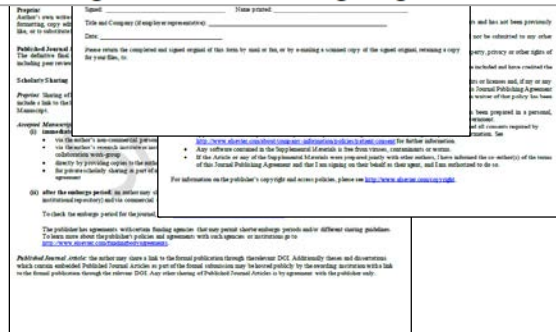
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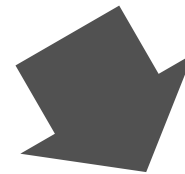
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# Beispiele der Workshop-TeilnehmerInnen

6 Beispiele von Zeitschriften-Artikeln

2 Beispiele für Konferenzbeiträge

1 Beispiel für Buchkapitel

**Müller, H.,** Haberlandt, U. (2016): Temporal rainfall disaggregation using a multiplicative cascade model for spatial application in urban hydrology, **Journal of Hydrology** (SI "Measuring & Modeling Rain"), accepted

# Journal of Hydrology (Elsevier)

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Ding, J., Wallner, M., **Müller, H.**, Haberlandt, U. (2016): Estimation of instantaneous peak flow from maximum daily flow using HBV model, **Hydrological Processes**, 30 (9), 1431-1448

# Hydrological Processes

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Haberlandt, U., **Müller, H.** (2013): Comparison of hydrology curricula of different disciplines at German universities, **Hydrologie und Wasserbewirtschaftung**, 57(3), 110-115

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Entwicklung nachhaltiger Strategien zum Entwässerungsmanagement an der  
Nordseeküste unter Berücksichtigung langfristiger klimatischer Veränderungen. In:  
**Forum für Hydrologie und Wasserbewirtschaftung**, (voraussichtlich)  
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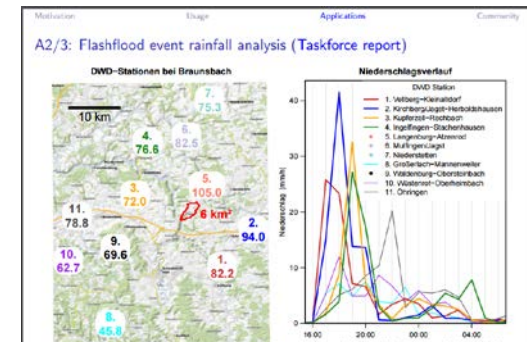
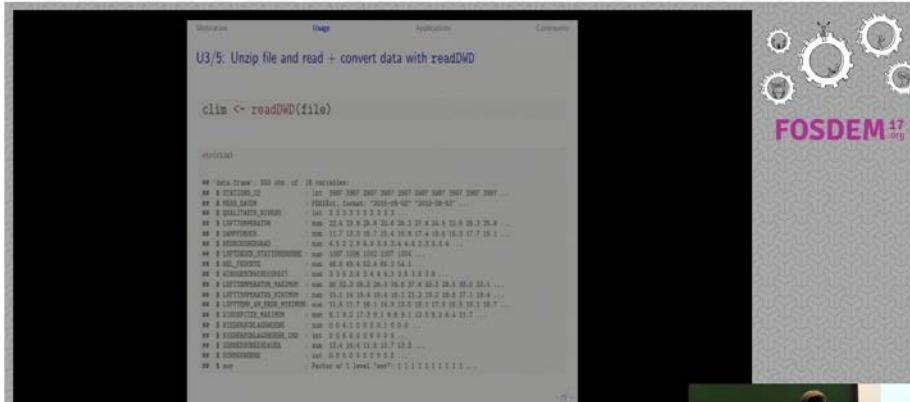
**Berry Boessenkool**

German weather data with R

**FOSDEM**'17

Brussels / 4 & 5 February 2017

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Daphne Gondhalekar, **Jenny Kebschull** (2013): *To centralize or not to centralize: Planning appropriate sanitation infrastructure in Leh Town, Ladakh, India.*



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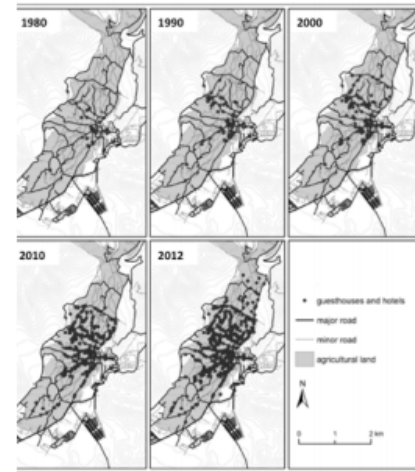


Figure 2: Increase in hotels and guesthouses since 1974

The huge increase in tourists in Leh signifies a huge increase in water demand. Hotels and guesthouses strive to provide flush toilets and showers to increase their rating and, thus, their overnight prices, according to the interview surveys. Thus, on top of the official extraction of groundwater by PHE, the questionnaire survey revealed that 52 percent of hotels and guesthouses have private bore wells, and are each extracting several thousand litres daily from the groundwater in the tourist season. For example, one hotel owner interviewed of a hotel with 18 en-suite rooms reported extracting up to 1,000 litres per day during the tourist season.

Focusing on water pollution factors in the 10 wards of Leh Town with predominantly agricultural land, the study found that as there is currently no overall or systematic wastewater management existing in Leh, hotels and guesthouses use septic tanks or soak pits to collect black- and grey wastewater. Many guesthouses were found to have only soak pits, potentially representing a significant source of effluents and thus groundwater pollution threat. In addition, 270 point sources of water pollution were mapped in the wards with predominantly agricultural land, which can be divided into three categories (total numbers of each are in brackets):

1. Black water pollution sites including black water inlets (from toilets) (8), public toilets without septic tanks and foul-smelling empty

2. Grey water pollution sites including grey water inlets (other bathroom and kitchen wastewater (216), clothes (12) and car washing points (1);
3. Garbage dumps (18).

Of all point sources of water pollution, 80 percent are grey water inlets, which is of concern because with grey water increasing amounts of chemicals are being released into the water system in Leh from detergent used for cleaning and washing purposes. Further, 4 restaurants were mapped in wards with predominantly agricultural land (Table 1). The field survey revealed that many restaurants in the agricultural land wards of Leh Town are garden restaurants without sanitary infrastructure and only dug pit toilets, so that effluent from restaurants along rivers and streams signify both surface and groundwater pollution threats.

The wards with predominantly agricultural land in Leh Town can be divided into 5 inner and 5 outer ward inner wards being those directly adjoining the ancient town centre. 96 percent of hotels, guesthouses and restaurants are located in the inner wards. Consideration of the distribution of point sources of water pollution in terms of proximity to rivers and streams in these 10 wards showed the following: hardly any point sources of water pollution were found in the outer wards. The percentage of the total number of point sources of water pollution located within 100 metres of a river or stream was more than twice as high in the inner than in the outer ward where point sources of water pollution were found. Further, the relation of the number of hotel guesthouses and restaurants to the percentage of point sources of water pollution within 100 metres of a river or stream was clearly the highest in the two wards Tukcha and Karzoo, which have the largest number of hotels, guesthouses and restaurants. Thus, increase in water pollution may be directly linked to the tourism industry. Overall, 62 percent of point sources of water pollution in the wards with predominantly agricultural land in Leh Town are within 100 metres of rivers and streams (Table 1).

Table 1: Distribution of point sources of water pollution in 2012

Ward ID	Ward Name	Ward Type	No. of Guesthouses	No. of Restaurants (R)	No. of Hotels (H) or Resorts (RS)	No. of Pollution sites (100 Metres of a River/ Stream)	% of total Pollution sites (100 Metres of a River/ Stream)	Ratio of No. of Pollution sites (100 Metres of a River/ Stream)
1	Sankar	Inner	57	0	26	29	74	1
2	Shayara I	Inner	17	0	32	38	88	8
3	Shayara II	Inner	22	0	36	24	44	3
4	Tukcha	Inner	203	18	97	65	68	2
5	Karzo	Inner	118	17	36	24	57	2
6	Stak I	Outer	6	2	22	0	0	0
7	Gargal	Outer	1	0	9	0	0	0
8	Gompa II	Outer	4	0	9	0	0	0
9	Gompa I	Outer	0	0	9	0	0	0

<https://mediatum.ub.tum.de/doc/1169388/1169388.pdf>

# Buchkapitel

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# Advances in Medical Sociology

## (Book Series, Emerald Publishing)

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