The work on flash flood is an interesting methodological effort to understand the behavior and evolution of these phenomena. Its interest is growing due to the impacts it causes in a short time and in very limited areas. Hence the complexity of its study and the need to make approximations on a detailed scale and proposing specific methodologies.
RESPONSE: We would like to thank the anonymous referee #3 for evaluation of our paper and raising several critical comments, which we are trying to answer below.

General comments
- It would be interesting if the abstract contained a preview of specific results of the research carried out.
RESPONSE: Accepted, abstract was complemented by some numbers as follows (we would not like to repeat other information from conclusions in Sect. 6): "Flash floods, characterized by their sudden onset, extreme discharges, short duration, material damage, and human loss, represent a significant natural hazard. Not well covered by standard hydrological observations, flash floods data can primarily be derived from various types of documentary evidence. This evidence served as the main data source for creating a flash flood database for the Czech Republic from 2001 to 2023. This database enabled detailed analysis of different aspects of flash floods. The annual series of 233 flash flood events, 160 flash flood days, and 424 affected municipalities showed significant inter-annual variability but no linear trends. The triggering rainfalls that generate flash floods were analyzed with respect to 1–3-hourly and daily precipitation totals and circulation types from the objective classification. While flash floods can occur anywhere, they were more frequently recorded at the foots of mountain slopes, often coinciding with "critical points" where built-up areas meet concentrated surface runoff pathways. The division of material damage caused by flash floods into eight categories indicated that the highest proportions of damage were to streets and communications 24.3%, as well as to houses 21.7%, their cellars, and basements 18.3%. There were also 36 recorded fatalities. The understanding of flash floods in the Czech Republic aligns generally well with studies of flash floods in other European regions.

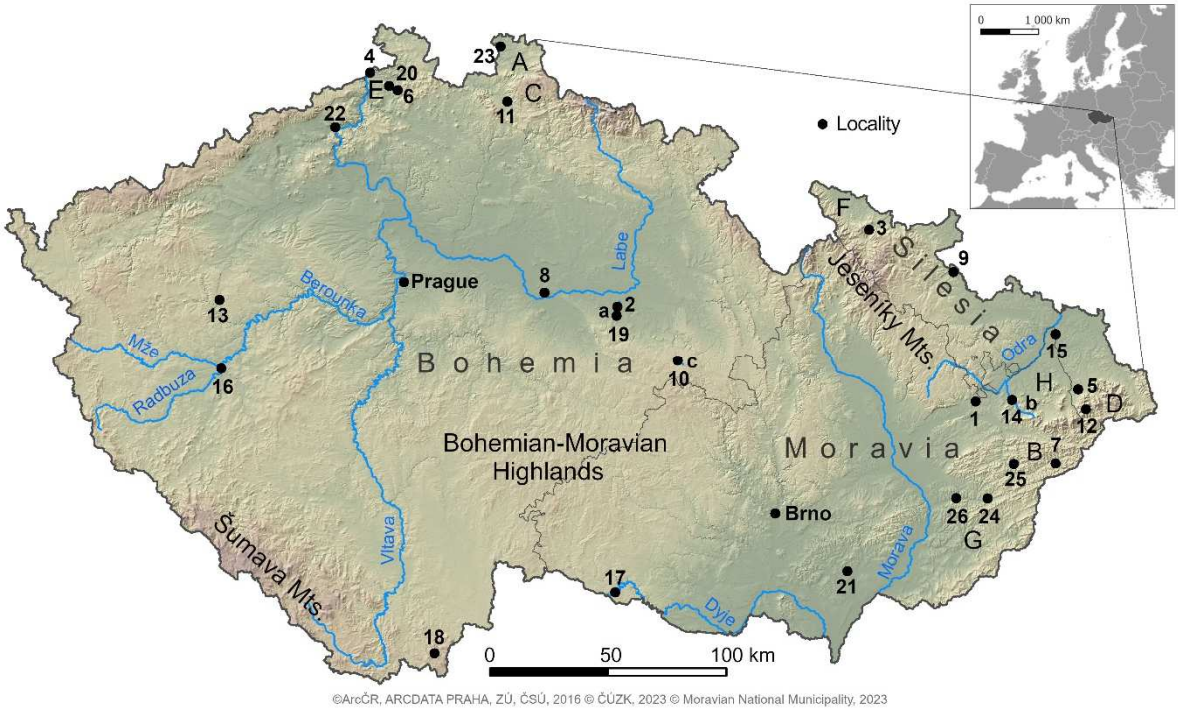
- Would it be possible to define the phenomenon with instrumental or at least quantitative variables? Not only related to hydrological criteria.
RESPONSE: Generally speaking, the flash floods are an unpredictable phenomenon and it is not possible to have some quantitative variable for such number of events. The creation of flash flood depends on diverse variables, the important one is the previous saturation of a catchment and so, the same precipitation can or may not create the surface runoff, the flooding depending on previous conditions. Our research presents the first step in collection and creation of systematic database of these events in the last decades. Of course, we could theoretically use, for example, quantitative precipitation estimates from radar measurements (as the standard meteorological station are not always located directly in or in proximity of impacted area), but such data are not available in the requested quality for the whole period analysed. It means, that for the scale of the whole Czech Republic and the period analysed it is nearly impossible to find some unquestionable instrumental variables.

- Defining flash floods based on hydrological behavior does not completely define flash floods. That is correct, but future research should also consider effects outside the river system. That is, pluvial floods. It's a more complex or diverse approach to be promoted in next steps of research.
In the Mediterranean region, the effects of torrential rain are currently directed in large proportion towards this type of phenomenon, linked to drainage problems, poor urban planning, or to the effect of the great minute intensity in which the precipitation occurs.

Distribution of these events is more extense than fluvial system, affecting areas in which historial or instrumental records cannot describe similar previous situations.
RESPONSE: We agree with your comment. In the future research we can include also the pluvial events. However, pluvial floods are very rare in the geographical conditions of the Czech Republic as the hydrographic network is very dense and any surface runoff soon enters a watercourse, making it very difficult to distinguish between flash and pluvial floods. In other words, a flood, that came through a watercourse does not (have to) contradict the primary cause of the flood – the rapid surface runoff (typically from arable land, built-up areas etc.).

- The work only covers a period of 23 years. It would have been much better to generate robust results for the purposes of climate analysis, to be able to extend the study period, at least up to 30 years.
RESPONSE: We agree with the referee that using the longest period as possible would be good for our research, but we have to reflect also given national/regional conditions for such research as well as the aim of this study. We selected the period which is the best covered by various data sources, particularly of electronic resources, journals web pages, which are in the Czech Republic widely expanded after 2000. This kind of research is extremely time consuming, because it requires a lot of time in searching and reading of different data sources including subsequent data verification and its critics. As one of important contributions of our study we see the creation of a systematic database of flash floods which can be further well extended into the past as well as into the future. Not any other such national database of flash floods exists in the Czech Republic until now.

Specific comments
Lines 100-105. Figure 1.
The location map is insufficient. Showing only the study region hinders viewing the entire river systems. A reference to the European continent and Central Europe would be very convenient. Considering foreign readers, it's important aspect to be considered.
RESPONSE: The new version of Figure 1 was added, where your comments (river system, position of the Czech Republic in Europe) were taken into account – see below:



Lines 110 and following
The use of local press sources has positive aspects. But in itself it leaves information unrecorded because it is not systematic and filters the published information by editorial criteria. It should be complemented with reports from emergency management authorities, administrations, insurance companies and social networks where amateur observers generate records of notable quality. Do the authors plan to deepen the research using these more objective and systematic sources of information?
Response: We agree with the referee because we are well aware of the problems with the use of documentary data and its weaknesses, particularly concerning newspaper – see our comments in Sect. 5.1: Data uncertainty. We summarised it on lines 406-407: "Although our database represents the best estimate of FF occurrences across the CR, we must be aware of possible uncertainties, especially in reporting events with small or negligible damage, which could remain unnoticed." We used the best data sources available for our research in the Czech Republic we had available – see detail description in Sect. 2.2 Data of flash floods. There is no problem to try to extend the now existing database from other sources in the future, but there are also other limitations of sources you propose and consider as "more objective and systematic" (e.g., availability of data from insurance agencies and their interest in events with smaller damage, 'non-specified type' events in firemen interventions, etc.).

Regarding the use of information obtained from social networks, of course, its use would only be as a complement as a secondary source, but it can provide a very good level of detail.
RESPONSE: In our research, we check the information from press also by hydrological reports of Czech Hydrometeorological Institute and records from fireman's interventions. In the following research we can complement the reports with social networks.

Lines 210 and following
It would be interesting to explain the availability of precipitation intensity records. Current pluvial flooding situations have a direct relationship with precipitation in millimeters per minute. Minute intensity data, if it exists, would be very explanatory.

RESPONSE: As mentioned in one of the comments above, it is often not possible to unambiguously determine the source areas on which a decisive part of the surface runoff is formed. And thus it is not possible to quantify the causal rainfall total and intensity. It is only possible to present at least the range of recorded 5- or 10-min intensities from weather radar data in the given areas if such data are available, which concerned only part of our period analyzed.

Unfortunately, this flash flood phenomenon "escapes" from the most common records by daily total. For example, in some regions we perceive an increase in flash floods due to episodes that do not reach a large total magnitude. 100 or 200mm of total daily precipitation are not necessary. On the other hand, the effects are very serious due to rain events that reach or exceed 2/4 millimeters per minute for periods of 10 to 20 minutes.
RESPONSE: We agree with the referee that information in mm per minute would be explanatory, but the dataset of CHMI used in this study included 799 stations reporting daily totals and 349 stations (automatic stations) providing hourly data. These automatic stations have even data in shorter time intervals, but such data (i.e. shorter than 1 hour) are not standardly checked for their quality and are biased by some other errors following from automatic measurements itself. Moreover, they do not cover the whole 23-year period analysed, despite the fact that such stations need not to be necessarily located close to the core areas of flash flood occurrences, which could be possibly used in our study. From these reasons our analysis concentrated on uniform high-quality daily and hourly precipitation totals covering the whole 2001–2023 period as presented in Sect. 4.2.1. Moreover, as mentioned in Sect. 2.2, above data were used also with respect "to the limited availability of radar precipitation data", which represent another potential quantitative characteristic of precipitation intensity.

Line 235 and following
Figures 5a and 5b. The data on prevailing winds and weather types in these figures would perhaps be better served with a pie chart style display, or a "compass rose" simulation. Suggested graphic resource is already applied in figure 7a.
RESPONSE: We understand what the referee means, but it is probably some misunderstanding. This data concern circulation types (synoptic situation), not prevailing winds, i.e. expression "with a pie chart style" would not be bringing any new information and would be also probably less instructive as our expression in Figs. 5a and 5b is. From this reason we would like to preserve Figure 5 in the original form.

Line 277.
Concept "preliminary financial damage estimates". It would be better "preliminary economic damage estimates" ?
RESPONSE: Accepted, we changed as proposed.

Line 280. Figure 7c.
This important display of data by categories, it would be better not only a graphic display, but also showing detailed data in a table. To make easier comparative evaluations between concepts and evolution in time. This resource is already used in Table 1.
RESPONSE: Accepted, the following Table was added to the manuscript:

Table: The annual totals of damage categories in municipalities affected by flash floods in the Czech Republic during the 2001–2023 period: A (flooded cellars/basements), B (flooded

houses), C (flooded streets/roads), D (flooded gardens), E (damaged roads), F (other damage), G (landslides), H (non-specified).

	Year 2000+																						
Damage	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
A	2	5	7	12	5	7	9	0	29	15	12	4	10	20	0	12	0	1	14	18	6	2	5	195
B	2	6	4	3	5	8	13	3	52	28	14	5	22	15	0	12	1	2	12	16	4	3	2	232
C	1	7	2	6	3	4	10	1	34	24	17	10	24	28	0	16	4	3	20	25	8	8	4	259
D	2	1	3	4	3	2	6	0	23	22	7	1	11	13	0	3	0	2	3	14	6	2	3	131
E	2	7	5	4	5	2	7	1	27	10	4	4	5	12	0	1	0	2	5	5	1	1	2	112
F	0	4	2	1	4	1	1	1	4	3	2	1	5	8	0	1	0	1	0	1	0	0	0	40
G	2	0	1	0	0	1	0	0	0	2	0	0	1	3	0	0	0	0	1	1	0	0	0	12
H	2	13	4	0	1	3	2	4	13	9	4	7	4	13	1	1	0	1	3	0	1	0	0	86
Total	13	43	28	30	26	28	48	10	182	113	60	32	82	112	1	46	5	12	58	80	26	16	16	1067