The authors clearly took the advice and comments of the reviewers into account. The restructuring of the text improved the readability a lot. The adaptations in sections 3.2 and 3.3 made the text more concise. The questions that came up during the reviewing process were answered nicely and short additional explanations were added into the article in a precise and to the point manner.

Some small additional remarks:

Line 164: friction velocity is here shortened as ustar (also in the table) while in line 161 it is shortened as u*, make this consistent.

Section 2.2: it is not entirely clear for me what the authors mean with the caption of table 1

> Caption in table 1: Soil heat flux and soil temperatures were calculated based on the shadow fraction estimated from the solar zenith angle (variable SZA) and a canopy cover of 20%.

Therefor it is also not entirely clear which soil measurements are actually measured and which are calculated based on shadow fractions and/or canopy covers. I think it is useful to refine Line 166-169, stating clearly how many sensors are used for Tsoil_op, Tsoil_bc, SHF_op, SHF_bc and for SWCn and on which locations (under canopy or open field).

> Line 166 – 169: Soil measurements comprised soil temperature in open pasture (Tsoil_op) and below oak tree canopy (Tsoil_bc) as well as soil heat flux in open pasture (SHF_op) and below canopy (SHF_bc). For soil water content we used the different measurements integrated over the top 20 cm of the soil, weighted by a canopy cover of 20 % to obtain soil water content values (SWCn) representative for the ecosystem.

Line 183: here RGB is mentioned but only in line 185 the letters are explained.

Section 2.4.1: revise this: several sentences are added but now some information is mentioned twice.

Section 2.4.2: some mathematical details

Line 247: I think it is not X . X but X . X^T or X . X'

Formula (6) is not entirely correct or completely clear, maybe rewrite as:

$$MI_{max} = \max_{\tau}\left(MI_{sync}(\tau)\right) = \max_{\tau}(\dots)$$