The TKE scheme typically produces smoother, more coherent fields, while the R_i scheme can create wildly-varying, poorly-resolved fields. The slower evolution of the cloud with the TKE scheme
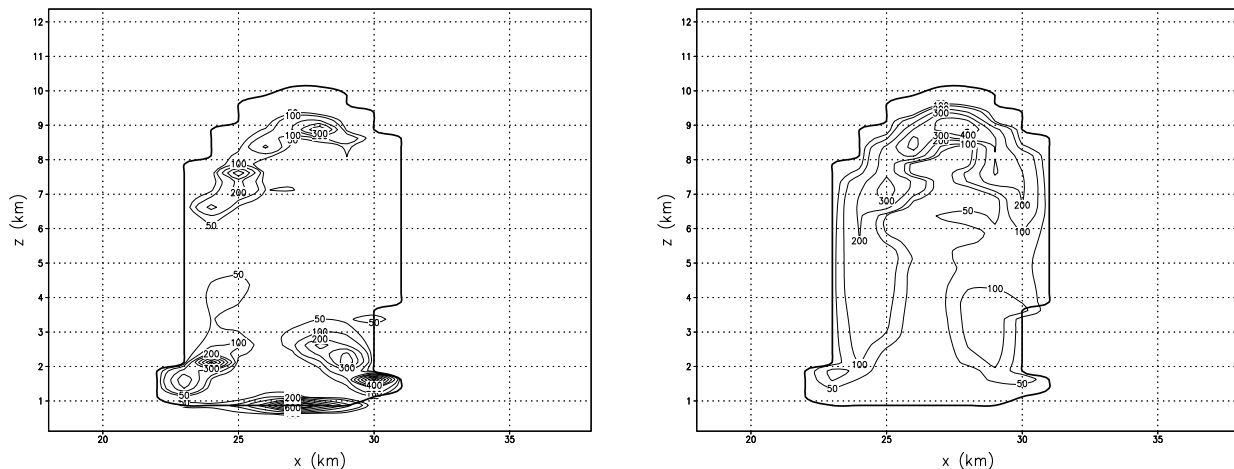

Fig. 1 *Cross sections of K_m (m^2 s^{-1}) at 20 min. using (left) the R_i based turbulence closure, and (right) the TKE-based turbulence closure. The cloud boundary is indicated by the bold contour.*
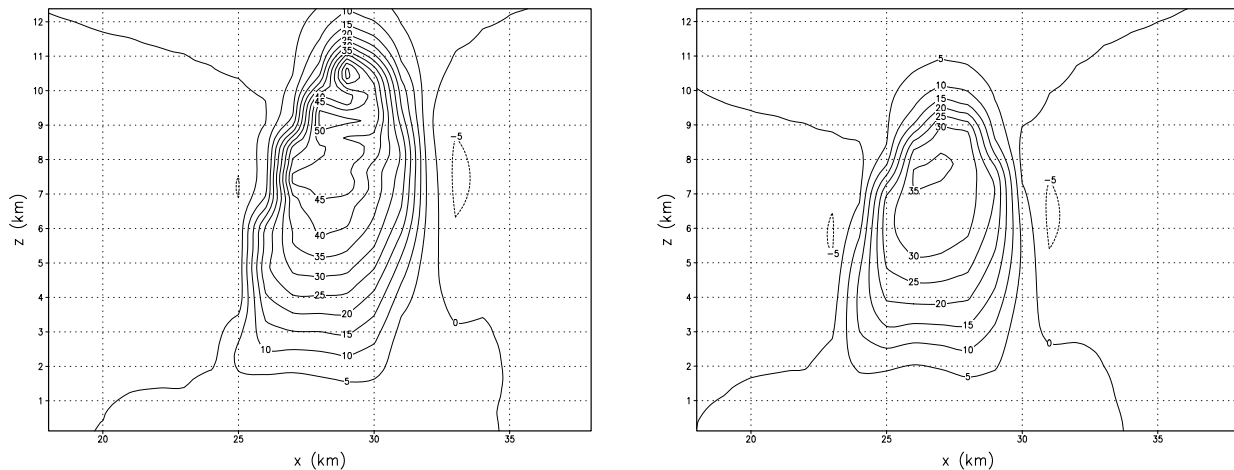

Fig. 2 *Cross sections of vertical velocity (m s^{-1}) at 20 min. from (left) a simulation using the R_i based turbulence closure, and (right) a simulation using the TKE-based turbulence closure.*
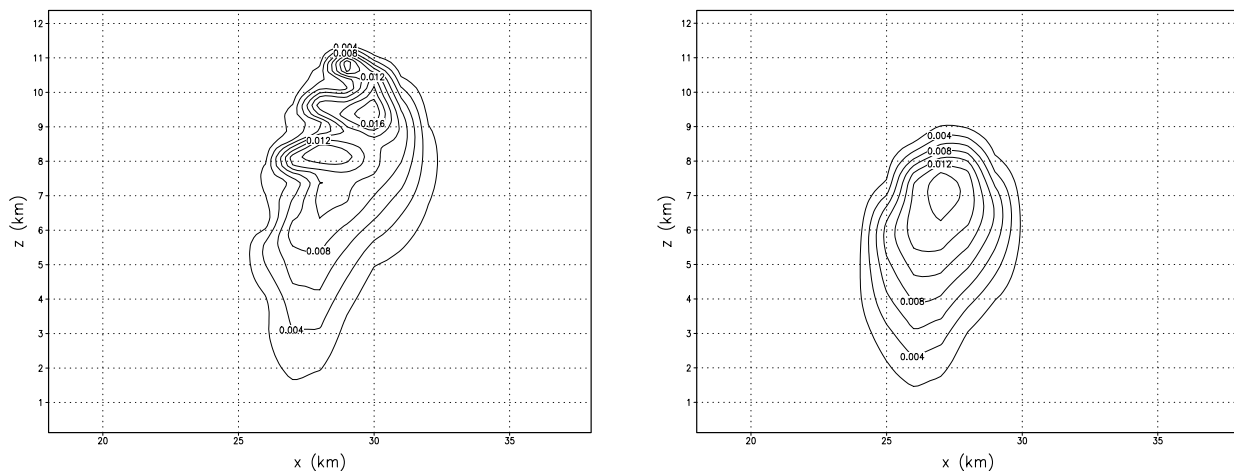

Fig. 3 *Cross sections of rain water mixing ratio at 20 min. from (left) a simulation using the R_i based turbulence closure, and (right) a simulation using the TKE-based turbulence closure.*