The purpose of the work described in the revised manuscript was to assess the time-dependent behavior of freshwater ice, including effects of creep and cyclic loading on fracture properties. To that end a joint experimental-modelling approach was adopted. Experiments were performed by prying open the sides of through-thickness notches that had been cut into large (3 x 6 meter), floating plates of warm (-0.3 C), S2 freshwater ice and then by measuring notch width versus time—the method the authors used (Gharamti et al. 2021) to explore whether size and/or loading rate affect the fracture toughness of the same material. The modelling part of the work was based on Schapery's constitutive theory for creep of polymeric material loaded uniaxially. Two findings: (i) creep and cycling sequences had no clear effect on failure load; and (ii) unlike in all past work where both recoverable (anelastic/delayed elastic/viscoelastic strain) and non-recoverable (viscoplastic) deformation have been found to contribute to creep of ice, significant viscoelasticity was not detected.

Finding (i) , with one proviso, is worth publishing. Earlier work (Rist et al. (1996, *Annals of Glaciology,* vol. 23, p.284), not referenced in this manuscript, hinted at an effect; now there appears not to be one. The proviso, in keeping with the stated objective of assessing fracture properties, is that this finding should be presented in terms of a fracture property, namely fracture toughness. Failure load is insufficient. The finding was presented in that way in the original manuscript (original Fig4). Why the change?

Finding (ii) is troubling. Prior work , correctly cited, revealed that viscoelasticity contributes to the creep of ice. Now, no significant anelasticity is detected. Why not? The authors point to differences in specimen size, temperature and grain size, although how those factors could account for the difference is not made clear. Instead, could the explanation reside in the experiment and analysis itself? Unravelling the various contributions to time-dependent deformation, even when experiments are made under uniaxial states of stress, is not easy. Here, the stress state is only approximately uniaxial and the unravelling is performed through mathematical manipulation to optimally fit model to data—a procedure the authors justify with the statement (lines 160-2): "This approach of fitting a model with experimental data is common in fracture models with several parameters. Pure experimental methods to establish these parameters has proven extremely difficult….". To conclude (lines 344-5) from this rather tortuous approach, justified by what could be read as an excuse, that the response of the ice was overall elastic-viscoplastic is questionable. The conclusion is not credible. Worse, it muddies the picture of the time-dependent deformation of ice.