



The intensity field of the Indian Ocean, 26 December 2004, tsunami

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The devastating tsunami caused by the great Sumatra earthquake of 26 December 2004 affected hundreds of coastal sites in many countries of the Indian Ocean from the near-field up to distances of more than 6000 km from the source corresponding to wave travel times up to ~ 8 hrs. Observations collected during post-tsunami field surveys by several groups, including the present research group, have been compiled and geographically classified. The degree of destruction, damage or other effects have been transformed to tsunami intensities. Classic 6-point and new 12-point intensity scales were used to characterize the tsunami intensity in each observation point. Relations between the tsunami intensity and the tsunami wave runup as well as intensity attenuation laws are investigated. The pattern of tsunami intensity field obtained is compared with the pattern of the earthquake intensity field.