Sukhinov A. I. (Don State Technical University, Rostov-on-Don, Russia), **Protsenko E. A.**, **Protsenko S. V.** (Chekhov Taganrog Institute Taganrog branch of Rostov State University of Economics, Taganrog).**The breaking statistics in wave dissipation parameterizations implemented in SWAN[1].**

Theorem on the spectral breaking probability. The discontinuity probability is estimated from the directional saturation spectrum $B'(k,\theta)$, so the spectrum disturbance probability is $P_b\left(k,\theta\right) = 28.4 \max\left(\sqrt{B'(k,\theta)} - \sqrt{B_r, 0}\right)^2$. For each breaking wave with phase velocity $\mathbf{C}_b$, the relative velocities of the crests of the underlying short waves are determined by $\Delta_{\mathbf{C}} = |\mathbf{C} - \mathbf{C}_b|$. The scattering velocity is simply determined by the speed of passage of long breaking waves over short underlying waves $\Delta_{\mathbf{C}}\Lambda(\mathbf{C})\mathrm{d}\mathbf{C}$, where $\Lambda(\mathbf{C})\mathrm{d}\mathbf{C}$ is the breaking wave crests length's density with phase velocity in the range $[\mathbf{C}, \mathbf{C} + \mathrm{d}\mathbf{C}]$. $\Lambda(k,\theta)\mathrm{d}k\mathrm{d}\theta$ it is estimated using the density of the length of the ridge (breaking or not) with $l(k,\theta) \approx 1/\left(2\pi^2\right)$ with $\Lambda(k,\theta) = P_b(k,\theta)l(k,\theta)$. The probability of breaking the wave scale indicator is then defined as

$$P_{b,f_i} = \int_0^{\infty} P_{R,f_i}(H) W_{FAB,f_i}\ (H)\,\mathrm{d}H.$$

REFERENCES

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объем тезисов не должен превышать области выше этой линии (за исключением сносок)

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