

## Review of wave breaking characteristics

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Surface wave breaking, occurring from the ocean to the coastal zone, is a complex and challenging two-phase flow phenomenon which plays an important role in numerous processes, including air-sea transfer of gas, momentum and energy. Recent modeling attempts are struggling with the lack of physical knowledge of the finest details of the breaking processes. Furthermore, no universal scaling laws for physical variables have been found so far. Hence, parameterizing breaking effects becomes very difficult. The pre- and post-breaking events can be quantified, detected, qualified (breaking detection, breaker classification, breaker intensity estimation, energy dissipation evaluation, etc.). We aim at presenting and discussing the common practices, and highlight the gaps and limitations.

### References

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