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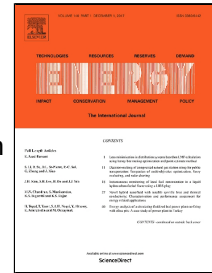
The dynamics and power absorption of cone-cylinder wave energy converters with three degree of freedom in irregular waves

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1. Motions and wave energy capture of a cone-cylinder WEC with three DOF are presented.
2. Effect of PTO damping, design parameters on power capture and efficiency are studied.
3. An optimized WEC is chosen. The absorbed power and efficiency are 38.95 kW and 60.51%.
4. Power capture is predicted for the optimized WEC at six stations in East China Sea.
5. At six stations, the absorbed power is 19.18-38.59 kW and efficiency is 37.98-47.95%.

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