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In the present paper the design process of a stabilizer fin is presented. Different computational tools were adopted: a two-dimensional panel-code was used to design the two-dimensional airfoil candidates and an optimizer based on genetic algorithms was used to choose the optimum airfoil. A panel-code and a Navier- Stokes solver were successively adopted to verify the three-dimensional design. The two codes showed similar results at low angle of attacks, but differences enlarged when the angle of attack increased. The fins are also adopted as zero-speed stabilizing fins. The torque moment at the fin axis was computed for a constant angular velocity of the fin and zero boat speed. Finally, free surface computations modelling the boat free to sink and trim, and different fin trims, were performed and compared with experimental data.

Author Name:

- 1 S. Della Rosa
- 2 M. Maceri
- 3 I.M. Viola
- 4 S. Bartesaghi

Author Company:

- 1 Aerospace Engineer, Yacht Designer and Consultant, Milan, Italy
- 2 Senior Aerodynamicist at Pilatus Aircraft Ltd., Luzern, Switzerland
- 3 Yacht Research Unit, The University of Auckland, New Zealand

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