COMBINING MODERN HYDROFOILS AND CLASSIC WOODEN YACHTS

15 APRIL 2018

Alvaro Guell
BEng (Hons) Yacht and Powercraft Design
2guela07@solent.ac.uk

Jean-Baptiste R. G. Souppez
Senior Lecturer in Yacht Design and Composite Engineering
jean-baptiste.soupeze@solent.ac.uk
CONTENTS

- Background
- Stability
- Dynamic Stability System
- Towing Tank Testing
- Performance
- Conclusion
THE BOAT

- Traditional design inspired by Spirit Yachts
MAKE IT MODERN: HYDROFOILS
DYNAMIC STABILITY SYSTEM (DSS)

HEELING MOMENTS (SAILS)

RIGHTING MOMENTS (FOIL)
DYNAMIC STABILITY SYSTEM (DSS)
TANK TESTING
TANK TESTING
PERFORMANCE PREDICTION UPWIND (LEFT) AND DOWNWIND (RIGHT)

- Result: Faster boat with DSS!
CONCLUSIONS

- Towing tank testing and velocity prediction undertaken
- Demonstrated better performance with DSS foils
- The designed also showed the feasibility of the installation on classic wooden yachts
THANK YOU!

Alvaro Guell
BEng (Hons) Yacht and Powercraft Design
2guela07@solent.ac.uk