



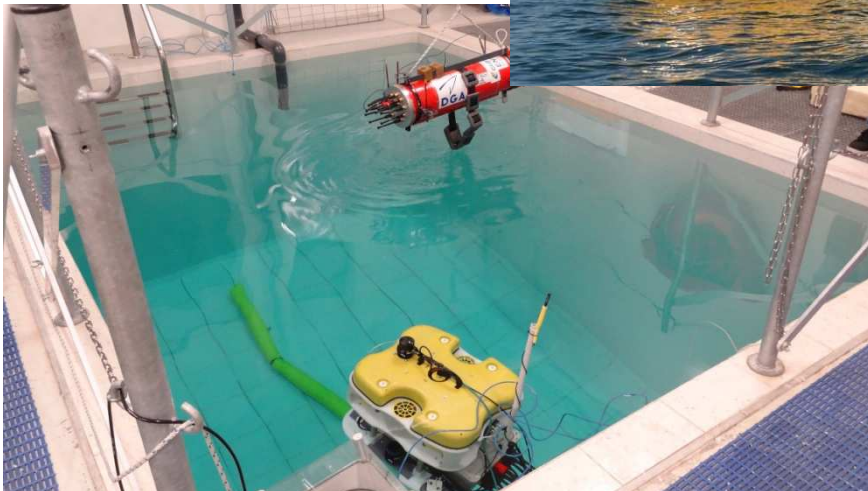
Team OSM

Ocean Sensing and Mapping

2013, October, 1st

OSM : OCEAN SENSING & MAPPING

25 People Permanent STAFF + 8 PhD's and 4 Post-docs
A robotic lab, a water tank and two vessels

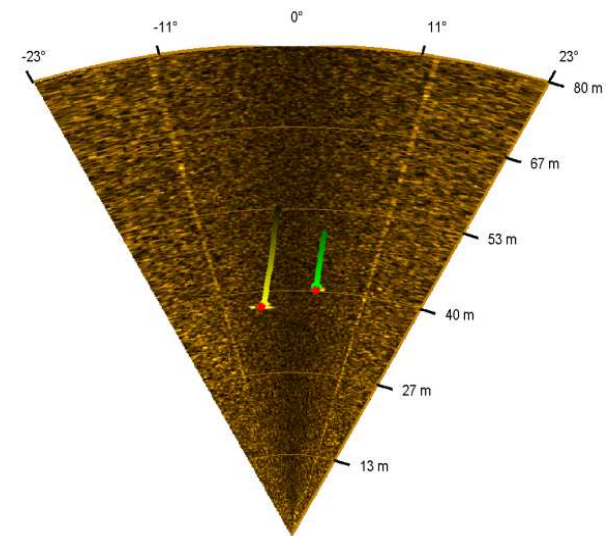
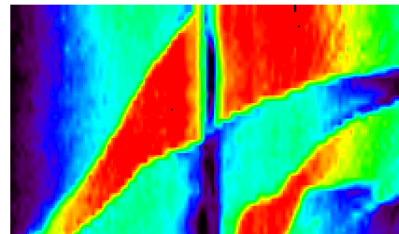
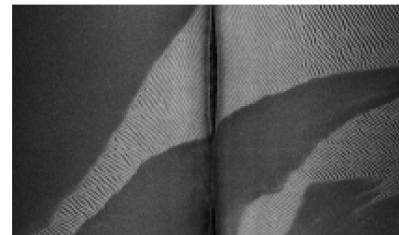
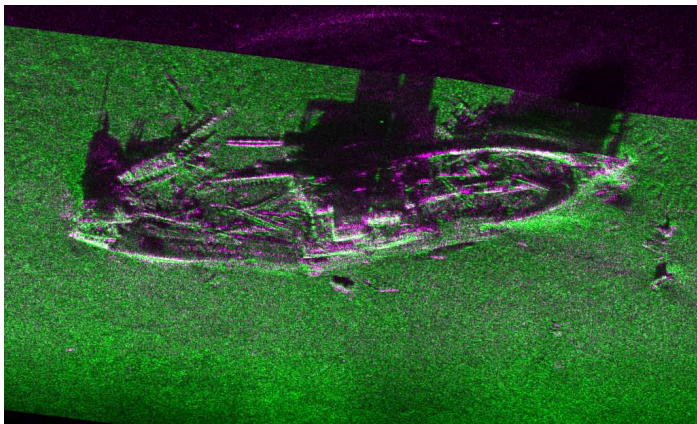


Sonar Systems :

Global approach of the sonar processing chain ...

... from the sensor design to the high-level information extraction :

- Beam forming, synthetic aperture & new sonar technology
- Design of multi-purpose “low cost” sonars
- Obstacle detection and avoidance
- Acoustic positioning and communication
- Image registration and matching



OSM : OCEAN SENSING & MAPPING

Robotics:

Automatic control of marine (underwater) robots :

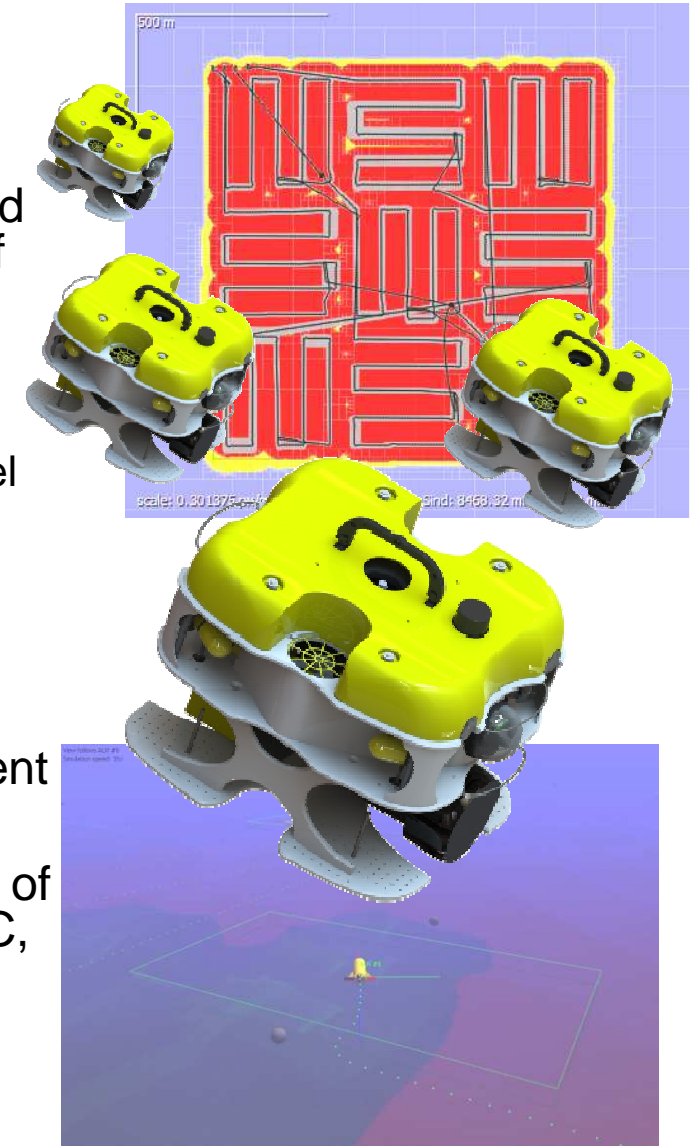
- Improving navigation using interval arithmetic
- Participating to student contest in underwater robotics
- Control/command strategy and navigation for groups (swarm) of robots
- Design and study of underwater (AUV, Glider) and surface (sailing boat, electric boat) robots



Robotics :

Current Activities

- First results of FUI Project “COMET” presented at EDA (for DGA) on coordination of a group of AUVs :
 - increasing the position accuracy by sparse communications between robots
 - using sensors model and navigation error model to compute the “guaranteed” and “possible” covered areas
 - Demonstrate that keeping one AUV at the sea surface improves significantly the positioning accuracy
- Participating to national and international student contest
- 2013 International conference and competition of sailing robots organized by STIC/OSM (WRSC, IRSC)
- Patents (on going process) :underwater positioning with CGG-VERITAS, navigation of swarm of AUV’s with TUS



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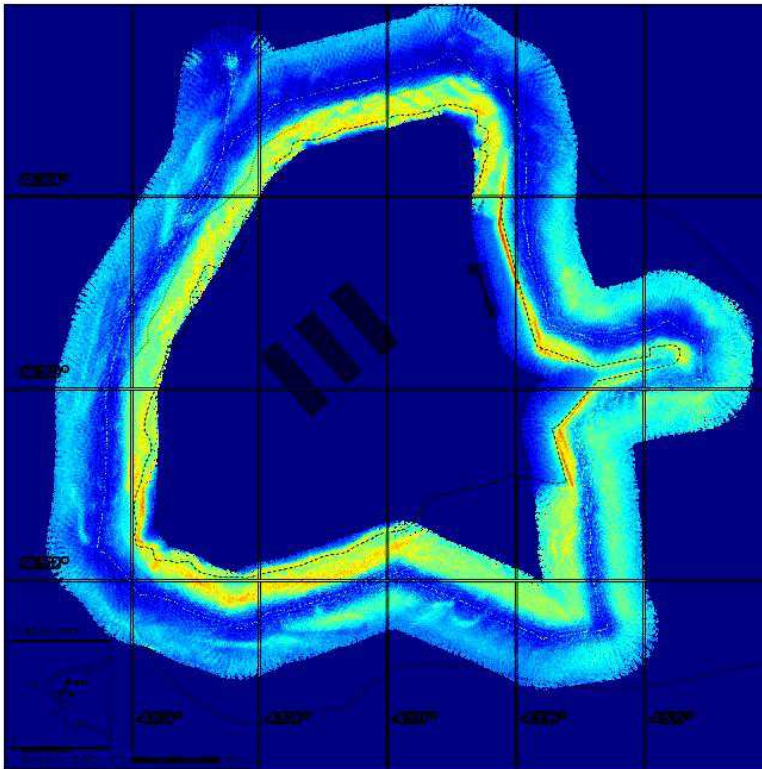
SAUC'E 2013 : European contest on underwater robotics



... 2 Teams of ENSTA Bretagne (1st and 3rd of the “at sea” competition of the contest)

OSM : OCEAN SENSING & MAPPING

July 2013 : Circumnavigation of the “ile aux morts” island in rade de Brest (Small AUV + rotating scanning sonar)



... project involving only graduate, PhD, post-graduate and post-doc students



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WRSC 2013



549 personnes aiment WRSC 2013.



News

A new functionality is available ! For further information follow the link

Welcome

WRSC (World Robotic Sailing Championship / Sailing Conference) will be held in the city

Don't hesitate to contribute to the wiki : Wikipedia page

739 Visites
20 Apr 2013 - 1 Ju



CENTRE NAUTIQUE DU MOULIN BLANC



Accès libre

WRSC / IRSC

BREST - 2 > 6 septembre 2013

Coupe du monde de robots voiliers autonomes

- > Demonstration de robots
- > Défi de robotique
- > Conference



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8 km Endurance Test Across the “rade of Brest”



... 8 sailing robots at the start, 6 finishing