Plateforme VIP

VIRTUAL IMAGING PLATFORM

Sorina Pop

8ème Workshop VIP

16/11/2020

Programme

- ✓ Courte introduction (Sorina Pop)
- ➢ Tour de table, présentation des attentes de chacun (tous)
- ➢ Préparation de données "images" pour la prédiction de la lésion finale en AVC (Carole Frindel)
- ➢ Quelques outils pour la neuro (Carole Lartizien)
- ➢ Suivi par IRM multiparamétrique sur un modèle animal des phases de démyelinisation/remyelinisation : les besoins en traitement d'images et applications potentielles sur VIP (Hélène Ratiney)
- ➢ Science reproductible et l'exemple ReproNim pour la neuro (Sorina Pop)
- ➢ Discussions et conclusions

CREATIS

Medical Imaging Research Laboratory
www.creatis.insa-lyon.fr

https://vip.creatis.insa-lyon.fr
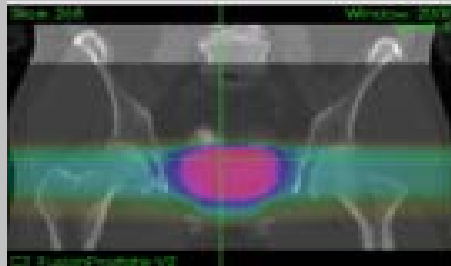
UNIVERSITÉ DE LYON

Web portal

Application as a service
File transfer to/from grid

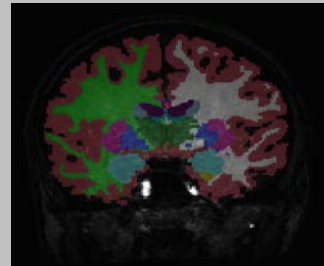### Scientific applications

Cancer therapy simulation

Prostate radiotherapy plan simulated
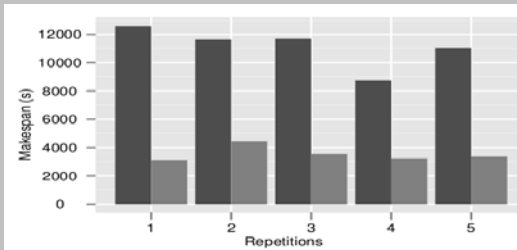with GATE(L. Grevillot and D. Sarrut)

Image simulation

Echocardiography simulated with
FIELD-II (O. Bernard *et al*)

Neuro-image analysis

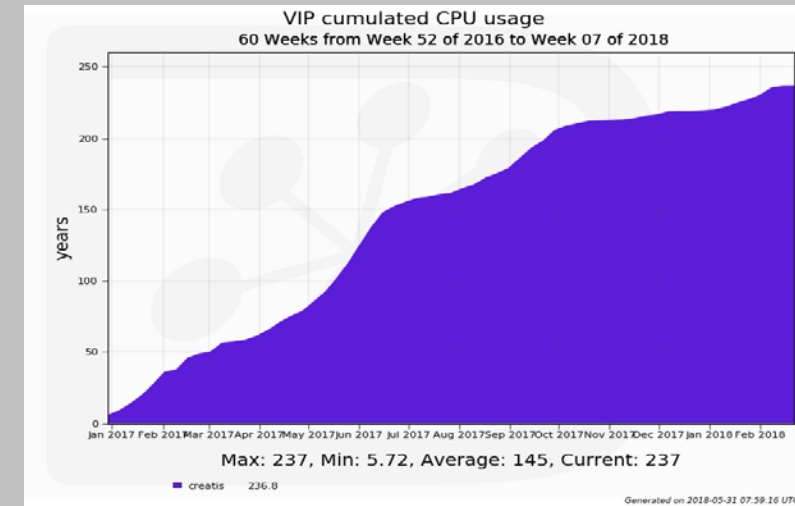Brain tissue segmentation
with Freesurfer

Modeling and optimization of distributed computing systems

Acceleration yielded by non-clairvoyant
task replication (R. Ferreira da Silva *et al*)

Infrastructure

Supported by EGI Infrastructure
Uses biomed VO (~65 sites in Europe and beyond)
VIP consumes ~**20 CPU years** every month

France-Grilles

DIRAC

Users

1000+ registered users in June 2018
55 publications since 2011

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People

■ VIP core team

- ■ Sorina Pop, IR CNRS
- ■ Axel Bonnet, IR CNRS
- ■ Frédéric Cervenansky, IR Université

Sorina Pop

Axel Bonnet

Frédéric Cervenansky

■ Currently working with us

- ■ Guillaume Vanel, IR on the PROCHIP EU Project (Carole Frindel)

■ Creatis research teams' members

- ■ All Creatis teams were represented by at least one person
- ■ See meeting reports at https://www.creatis.insa-lyon.fr/site7/fr/vip

■ External collaborations

- ■ Tristan Glatard, Associated Professor at Concordia University, Montreal

VIP latest news

■EGI ACE EU project accepted

- ■ VIP participates as both a consumer and provider of services
- ■ 15 PM for VIP
- ■ Project to start in January 2021

■FLI IAM II

- ■ A private company to exploit the FLI IAM infrastructure (Shanoir + VIP)
- ■ Project starts in Nov 2020

■Communication

- ■ VIP demo on Girder integration at the EGI conference: https://www.youtube.com/watch?v=weFM50CtX8o&list=PL8MrRo-3u8htus3t5xIZZ2qlLV1lSJ_tP&index=12
- ■ VIP demo on importing application at the JCAD conference (planned for December 2020)