

## Gianluigi Zanetti



Gianluigi Zanetti is the director of Data-Intensive Computing at CRS4, an interdisciplinary research center based in Pula, Sardinia (Italy). He coordinates a research and development group of researchers and software engineers that is at the forefront in the research, development and application of technology for acquisition, processing and analysis of massive data sets. The group main application focus is in the biomedical and clinical context, with a large emphasis on the computational and informatics support to large scale population studies and to the development of integrated systems for molecular and digital pathology applications. Gianluigi's group complements its biomedical research/bioinformatics computational expertise with a deep experience in clinical informatics.

Gianluigi holds a degree in Physics from the University of Bologna (1984) and a Ph.D. in Physics from The University of Chicago (1988). Before joining CRS4, he has conducted research and teaching activities at Princeton University, Los Alamos National Lab, École Normale Supérieure (Paris) and other institutions.

### Selected publications

1. Gianmauro Cuccuru, Massimiliano Orsini, Andrea Pinna, Andrea Sbardellati, Nicola Soranzo, Antonella Travaglione, Paolo Uva, Gianluigi Zanetti, Giorgio Fotia. Orione, a web-based framework for NGS analysis in microbiology. *Bioinformatics Oxford University Press* pages 1928-1929 vol. 30 num. 13 - 2014. Doi: 10.1093/bioinformatics/btu135
2. Simone Leo, Luca Pireddu, Gianmauro Cuccuru, Luca Lianas, Nicola Soranzo, Enis Afgan, Gianluigi Zanetti. BioBlend.objects: metacomputing with Galaxy. *Bioinformatics Oxford University Press* pages 2816-2817 vol. 30 num. 19 - 2014. Doi: 10.1093/bioinformatics/btu386
3. Andrea Calabria, Simone Leo, Fabrizio Benedicenti, Daniela Cesana, Giulio Spinozzi, Massimiliano Orsini, Stefania Merella, Elia Stupka, Gianluigi Zanetti, Eugenio Montini. VISPA: a computational pipeline for the identification and analysis of genomic vector integration sites. *Genome Medicine BioMed Central* vol. 6 num. 9 - september 2014. Doi: 10.1186/s13073-014-0067-5
4. Gianmauro Cuccuru, Simone Leo, Luca Lianas, Michele Muggiri, Andrea Pinna, Luca Pireddu, Paolo Uva, Andrea Angius, Giorgio Fotia, Gianluigi Zanetti. An Automated Infrastructure to Support High-throughput Bioinformatics. *Proc. IEEE International Conference on High Performance*

Computing & Simulation (HPCS 2014) IEEE pages 600-607 Smari, Waleed W. and Zeljkovic, Vesna Eds. - july 2014.  
Doi: 10.1109/HPCSim.2014.6903742

5. André Schumacher, Luca Pireddu, Matti Niemenmaa, Alekski Kallio, Eija Korpelainen, Gianluigi Zanetti, Keijo Heljanko . SeqPig: simple and scalable scripting for large sequencing data sets in Hadoop. Bioinformatics Oxford University Press - october 2013.  
Doi: 10.1093/bioinformatics/btt601
6. Alessandra Biffi, Eugenio Montini, Laura Lorioli, Martina Cesani, Francesca Fumagalli, Tiziana Plati, Cristina Baldoli, Sabata Martino, Andrea Calabria, Sabrina Canale, Fabrizio Benedicenti, Giuliana Vallanti, Luca Biasco, Simone Leo, Nabil Kabbara, Gianluigi Zanetti, William B. Rizzo, Nalini A. L. Mehta, Maria Pia Cicalese, Miriam Casiraghi, Jaap J. Boelens, Ubaldo Del Carro, David J. Dow, Manfred Schmidt, Andrea Assanelli, Victor Neduva, Clelia Di Serio, Elia Stupka, Jason Gardner, Christof von Kalle, Claudio Bordignon, Fabio Ciceri, Attilio Rovelli, Maria Grazia Roncarolo, Alessandro Aiuti, Maria Sessa, Luigi Naldini. Lentiviral Hematopoietic Stem Cell Gene Therapy Benefits Metachromatic Leukodystrophy. Science AAAS pages 1233158 vol. 341 num. 6148 - august 2013. Doi: 10.1126/science.1233158
7. Chris Allan, Jean-Marie Burel, Josh Moore, Colin Blackburn, Melissa Linkert, Scott Loynton, Donald MacDonald, William J. Moore, Carlos Neves, Andrew Patterson, Michael Porter, Aleksandra Tarkowska, Brian Loranger, Jerome Avondo, Ingvar Lagerstedt, Luca Lianas, Simone Leo, Katherine Hands, Ron T. Hay, Ardan Patwardhan, Christoph Best, Gerard J. Kleywegt, Gianluigi Zanetti, Jason R. Swedlow. OMERO: flexible, model-driven data management for experimental biology. Nature Methods pages 245--253 vol. 9 num. 3 - march 2012. Doi: 10.1038/nmeth.1896
8. Luca Pireddu, Simone Leo, Gianluigi Zanetti. SEAL: a distributed short read mapping and duplicate removal tool. Bioinformatics pages 2159--2160 vol. 27 num. 15 - 2011. Doi: 10.1093/bioinformatics/btr325