

SOURIAU COLLOQUIUM

Colloque International de Théories Variationnelles (CITV)

Jean-Marie Souriau (<http://www.jmsouriau.com/> and http://en.wikipedia.org/wiki/Jean-Marie_Souriau), born on 3 June 1922 and dead on 15 March 2012, was a French mathematician, known for works in symplectic geometry, in which he was one of the pioneers.

He has left us not solely a master piece of scientific work through his treatises on dynamical systems, relativity and quantum mechanics but Jean-Marie Souriau –the professor and the human person– has also given us a sound philosophical vision of the world through his last book, “Grammaire de la nature”.

Originally founded in 1956 by Jean-Marie Souriau, his doctoral students and friends, re-launched by Claude Vallée in 1996, the Colloquium entitled “Colloque International de Théories Variationnelles” (CITV) provides today an informal setting to present and discuss the state-of-the-art and the most recent findings concerning Mathematics, Physics, Mechanics and their interactions.

Every year during a week, the CITV brings together a small group of participants hoping to work within the founder’s spirit. In marked contrast to standard Colloquia, the CITV’s style is completely informal:

- The schedule is prepared day-to-day and, if necessary, the talk durations may be adjusted under way.
- Preference is given to present ideas on the blackboard even if modern video presentations are also allowed.
- Emphasis is put on scientific maturity and creative ideas as opposed to technicalities.
- A large time is devoted to questions, discussion and exchange of ideas.
- The spectrum of topics being very broad, a special attention is paid to present advanced concepts in simple terms for people with strong scientific background but the non-specialists of the topic.
- The oral transmission of the knowledge is preferred –but not opposed– to modern communication based on paper publication.
- Epistemological talks are sometimes given in the evening and also open to accompanying persons.
- The social program is not reserved for accompanying persons but convivial interludes are scheduled in the afternoon for scientific participants sharing cultural visits and excursions with them.

Some examples of presentations at previous editions of CITV

Jean-Marie SOURIAU, “relativité pentadimensionnelle”.

Charles-Michel MARLE, “Dirac Brackets and bihamiltonian structures”.

Claude VALLÉE, « fonctions de Fitzpatrick et bipotentiels”.

Géry DE SAXCÉ, “Construction of a central extension of a Lie group from its symplectic cohomology”.

Christian DUVAL, “Geometrical spinoptics and the optical Hall effect”.

Gijs TUYNMAN, “Supermanifolds”.

Bernard NAYROLES, “la topologie des mécaniciens”.

Dominique CHEVALLIER, “Poincaré-Chetayev equations and geometry of fiber bundles”.

Richard CUSHMAN, “quantum monodromy in hydrogen atom in orthogonal electromagnetic fields”.

Michel PETITOT, “problèmes d'équivalence et groupoïdes”.

Patrick BALLARD, “Dynamique unilatérale”.

Charles-Michel MARLE, “groupoïdes et algébroïdes de Lie”.

Michael BAN, “généralisation du théorème de Melan au cas des matériaux admettant un bipotentiel”.

Jean-Marie SOURIAU, “les groupes comme universaux”.

Jean-Pierre PETIT, “bigravité. Modèle bimétrique d'univers”.

Marius BULIGA, “sub-riemannian geometry and metric profiles”.

Noël DAHAN, “high pressure and gas gun at high speeds”.

Delia IONESCU, “Consequences of the causality principle in the relativistic theory of gravitation”.

Claude VALLÉE, “Optimal control and Riemann curvature”.

Charles-Michel MARLE, “about Noether's theorem”.

Christian LEXCELLENT, “Thermodynamical model of shape memory alloys”.

Eric BERGSHOEFF, “new symmetries”.

Géry DE SAXCÉ, “Galilean thermodynamics of continua”

Włodzimierz TULCZYJEW, “Liouville structures”.

Paweł URBANSKI, “conservation laws without symmetries”.

François DUBOIS, “entropy velocity for hyperbolic conservation”.

Sergey GAVRILYUK, “hyperbolicity of the elasticity”.

(non exhaustive) list of participants at previous editions

- Emmanuel ATCHONOU GLO (Lomé, Togo)
- Patrick BALLARD (Marseille)
- Eric BERGSHOEFF (Groeningen, The Netherlands)
- Alain BOSSAVIT (Paris)
- Jean-Jacques BRAHIM (Paris)
- Dominique CHEVALLIER (Paris)
- Géry DE SAXCÉ (Lille)
- François DUBOIS (Paris)
- Henri-Hugues FLICHE (Aix-en-Provence)
- Sergey GAVRILYUK (Marseille)
- Antony GRAVOUIL (Lyon)
- LE QUANG Hung (Paris)
- Christian LEXCELLENT (Besançon)
- Charles-Michel MARLE (Paris)
- Christian MIEBACH (Calais)
- Tony MONNET (Poitiers)
- Bernard NAYROLES (Empurany en Ardèche)
- Lalaonirina RAKOTOMANANA (Rennes)
- Laurent STAINIER (Nantes)
- Jean-Marie SOURIAU (Aix-en-Provence)
- Włodzimierz TULCZYJEW (Naples, Italie)
- Gijsbert TUYNMAN (Lille)
- Paweł URBANSKI (Warszawa, Poland)
- Roger VALID (Paris)
- Claude VALLÉE (Poitiers)
- Paolo VANUCCI (Paris)