

# CMS Summer Meeting 2002

*Université Laval, Quebec City, Quebec, June 15-17, 2002*

On behalf of Laval University, the Department of Mathematics and Statistics invites all researchers, educators and students to the Summer 2002 Meeting of the Canadian Mathematical Society (CMS).

Following the usual format, the meeting will include fourteen symposia, contributed papers, five plenary speakers, as well as the Jeffery-Williams and Krieger-Nelson lecturers and a public lecture presented by Jean-Marie De Koninck.

Laval University is also very pleased to announce that, during the meeting, Professor Robert P. Langlands (IAS) will receive a *honoris causa* doctorate.

All pre-meeting activities and scientific talks will be held at Pavillon Palasis-Prince and Pavillon Alexandre-Vachon, home of Laval's Faculty of Science and Engineering.

The most up-to-date information concerning the programmes, including scheduling, will be made available at the following world wide web address:

<http://www.cms.math.ca/Events/summer02/>

Meeting registration forms and hotel accommodation forms are published in the February 2002 issue of the *CMS Notes* and are also available on the website, along with on-line forms for registration and submission of abstracts.

## Public Lecture

Jean-Marie De Koninck (Laval University)

## Plenary Speakers

David W. Henderson (Cornell University); Nikolai Nikol'ski (University of Bordeaux 1, Steklov Inst.); Christophe Reutenauer (Université du Québec à Montréal; Paul D. Seymour (Princeton University); Isadore M. Singer (MIT).

## Prizes and Awards

The CMS Jeffery-Williams Lecture will be given by Edwin Perkins, University of British Columbia.

The CMS Krieger-Nelson Lecture will be given by Priscilla Greenwood, University of British Columbia, Arizona State University.

## Honorary Degree

Laval University is very pleased to announce that Robert P. Langlands (IAS) will receive a *honoris causa* doctorate. The presentation will be made during the banquet on Sunday, June 16, 2002.

## Symposia

By invitation of the Meeting Committee, there will be symposia in the following areas. Here is the preliminary list of speakers. If you are interested in being an invited speaker in one of the symposia, it may be possible to do so by contacting one of the organizers of that symposium. (\*) Indicates tentative.

**Analysis** (Org: T. Ransford, Laval University).

L. Baribeau (Laval), A. Boivin\* (Western), T. Bloom\* (Toronto), A. Brudnyi (Calgary), Y. Chen (Lakehead), B. Cole\* (Brown), D. Coman\* (Syracuse), G. Dafni (Con-

cordia), R. Fournier (Montreal), A. Fraser\* (Dalhousie), P. Gauthier (Montreal), F. Larusson\* (Western), N. Levenberg\* (Syracuse), J. Mashreghi (Laval), E. Poletsky (Syracuse), D. Rochon\* (UQTR), J. Rostand (CRD, Ottawa), Z. Slodkowski (Illinois-Chicago), P. Vitse (Bordeaux/Laval), J. Wermer (Brown).

**Arithmetic Algebraic Geometry** (Org: Kumar Murty and P. Sastry, University of Toronto).

D. Arapura (Purdue), N. Boston (Illinois-Urbana), B. Conrad\* (Michigan), H. Darmon (McGill), E. Goren (McGill), H. Kisilevsky (Concordia), J. Lewis (Alberta), R. Murty (Queen's), R. Takloo-Bighash (Princeton), Y. Zarhin (Penn State).

**Associative Algebras** (Org: I Assem, University of Sherbrooke, and F. Huard, Bishop's University).

I. Assem (Sherbrooke), J. Bilodeau (Toronto), R.-O. Buchweitz\* (Toronto), J. C. Bustamante\* (Sherbrooke), F. Huard (Bishop's), M. Kleiner (Syracuse), M. Lanzilotta (Republica, Uruguay), J. Lévesque (Sherbrooke), S. Liu\* (Sherbrooke), A. Martsinkovsky (Northeastern), R. Raphael\* (Concordia), D. Zacharia\* (Syracuse).

**Category Theory** (Org: R. Paré, Dalhousie University).

M. Barr (McGill), R. Blute (Ottawa), M. Bunge (McGill), R. Cockett (Calgary), R. Dawson (Saint Mary's), J. Duskin (SUNY-Buffalo), P. Freyd (Pennsylvania), D. Garraway (Colby), A. Joyal (UQAM), F. Linton (Wesleyan), W. MacCaull (St Francis Xavier), J. MacDonald (British Columbia), M. Makkai (McGill), S. Niefield (Union), R. Paré (Dalhousie), D. Pronk (Dalhousie), R. Rosebrugh (Mount Allison), P. Scott (Ottawa), R. Seely (McGill), J. Wick Pelletier (York), R. Wood (Dalhousie).

**Combinatorics** (Org: C. Chauvre, UQAM, S. Corteel, CNRS and UQAM, and P. Leroux, UQAM).

F. Bergeron (UQAM), M. Bousquet (UQAM), M. Bousquet-Melou (UQAM/Bordeaux), I. Gessel (Waltham), I. Goulden (Waterloo), A. Goupil (UQAM), G. Labelle (UQAM), P. Lalonde (UQAM), V. Liskovets (Minsk), J. Morse (Penn State), I. Pak (Boston), J. Propp\* (Wisconsin), F. Ruskey (Victoria), C. Savage (North Carolina), G. Schaeffer (Nancy), R. Stanley (MIT), J.-Y. Thibon (Paris), B. van Rensburg (Toronto), X. Viennot (Bordeaux), T.R. Walsh (UQAM), J. West (Victoria), C. Yan (College Station), D. Zeilberger (Princeton), J. Zeng (Lyon).

**Cryptography** (Org: **D. Stinson**, University of Waterloo, and **H. Williams**, University of Calgary).

M. Bauer (Waterloo), D. Bernstein (Illinois-Chicago), I. Blake (Toronto), D. Brown (Certicom), P. D'Arco (Waterloo), G. Gong (Waterloo), S. Hamdy (Calgary), A. Hasan (Waterloo), M. Jacobson (Manitoba), R. LaFlamme (Waterloo), S. Magliveras (Florida Atl.), R. Mollin (Calgary), K. Murty (Toronto), N. Pippenger (UBC), R. Scheidler (Calgary), A. Silverberg (Ohio State), A. Stein (Illinois-Urbana), S. Tavares (Queen's), E. Teske (Waterloo), G. Walsh (Ottawa), R. Wei (Lakehead).

**Differential Geometry** (Org: **J. Chen**, University of British Columbia).

C. Arezzo (Università di Parma), J. Bryan (UBC), X. Chen (Princeton), A. Fraser (Brown), X. Liu (Notre Dame), P. Lu (McMaster), Z. Lu (California-Irvine), D. Matessi (Montréal), W. Minicozzi\* (Johns Hopkins), M. Minoo (McMaster), G. Tian\* (MIT), J. Viaclovsky (MIT), J. Wang (Minnesota), M. Wang (McMaster), R. Wentworth (Johns Hopkins).

**Dynamical Systems** (Org: **Michael Radin**, RIT).

B. Brooks (RIT), S. A. Campbell (Waterloo), M. G. Cojocararu (Queen's), B. Dionne\* (Ottawa), C. Kent (VCU), W. Kosmala (ASU), V. LeBlanc (Ottawa), S. Maggelakis (RIT), A. Novruzzi (UBC), M.A. Radin (RIT), H. Sedaghat (VCU), C. Stoica (Victoria).

**Graph Theory** (Org: **B. Alspach**, University of Regina).

P. Balister\* (Memphis), E. Dobson (Mississippi State), L. Goddyn (Simon Fraser), P. Hell (Simon Fraser), J. Janssen\* (Dalhousie), D. Marusic (Ljubljana), M. Muzychuk\* (Netanya), M. Sajna (Regina), M. Schultz (UNLV), D. Witte (Oklahoma State), X. Yu (Georgia Tech), C.-Q. Zhang (West Virginia).

**Mathematical Education The teaching and learning of geometry: Why, what, how** (Org: **F. Gourdeau** and **B. R. Hodgson**, Laval University).

J. Baracs (Montréal), D. W. Henderson (Cornell), M. Sinclair (York), W. Whiteley (York).

Those interested in contributing to the Mathematical Education session are invited to contact F. Gourdeau (fredg@mat.ulaval.ca) or B. R. Hodgson (bhodgson@mat.ulaval.ca).

**Mathematics of Finance** (Org: **Hassan Manouzi**, Laval University).

Those interested in contributing to the Mathematics of Finance session are invited to contact H. Manouzi (hm@mat.ulaval.ca).

**Number Theory** (Org: **A. Akbary** and **O. Kihel**, University of Lethbridge).

E. Benjamin\* (Maine), D. Bradley (Maine-Orono), S. Choi (Simon Fraser), A. Cojocararu (Queen's), C. Cum-

mins (Concordia), C. Cunningham (Calgary), H. Darmon (McGill), C. David (Concordia), L. Davison (Laurentian), J.-M. De Koninck (Laval), S. El Morchid\* (Casablanca), E. Goren (McGill), J. G. Huard (Canisius C.), C. Ingalls (New Brunswick), R. Mollin (Calgary), R. Murty (Queen's), A. Ozluk (Maine), D. Roy (Ottawa), A. Sebbar (Ottawa), C. Stewart (Waterloo), F. Thaine (Concordia), G. Walsh (Ottawa).

**Probability Theory** (Org: **D. Dawson**, Carleton University and **G. Slade**, University of British Columbia).

M. Barlow (UBC), T. Cox (Syracuse), D. Dawson (Carleton/McGill), R. Durrett (Cornell), W. Hong (Carleton), N. Madras (York), C. Mueller (Rochester), J. Quastel (Toronto), A. Sakai (UBC), G. Slade (UBC), J. Walsh (UBC), X. Zhou (Concordia).

**Universal Algebra** (Org: **J. Hyndman** and **S. Wismath**, University of Lethbridge).

C. Bergman (Iowa State), G. Gratzner (Manitoba), L. Hadad\* (RMCC), B. Larose (Concordia), G. McNulty\* (South Carolina), J. B. Nation (Hawaii), B. Sands (Calgary), M. Valeriote (McMaster), R. Willard\* (Waterloo), J. Young (Iowa State).

**Contributed Papers Session** (Org: **N. Lacroix** and **C. Levesque**, Laval University).

Contributed papers of 15 minutes duration are solicited. In order to provide a broader audience, there will be parallel sessions of and only of contributed papers: (no lecture in the 13 other sessions). Abstracts for CMS contributed papers should be prepared as specified below. For an abstract to be eligible, the abstract must be received before **May 15, 2002**. The abstract must be accompanied by its contributor's registration form and payment of the appropriate fees.

## Travel Grants for Graduate Students

Limited funds are available to partially fund the travel and accommodation costs for graduate students. For more information, please contact the Meeting Committee at gradtravel-summer02@cms.math.ca. Further details regarding deadlines and application procedures are available on our website.

## Social Events and Exhibits

A **welcoming reception** will be held Friday, June 14, from 7:00 to 9:00 p.m. in the lobby of Pavillon Palasis-Prince of Laval University. The **Delegates' Luncheon** will be held on Saturday, June 15, from 12:00 to 2:00 p.m. (location to be announced). A ticket to this luncheon is included in all registration fee categories. A **banquet** will be held on Sunday, June 16, from 7:30 p.m. at the Musée du Québec, Parc des Champs-de-Bataille, preceded by a cash bar at 6:30 p.m. in le Grand hall. Tickets to this event are available at \$50.00 each. Coffee and juice will be available during the scheduled breaks.

Exhibits will be open during specified hours during the conference.

## Business Meetings

The CMS will be holding business meetings during the course of the meeting. Additional information will be

provided in later announcements and may be found on the Society's website.

### Submission of Abstracts

Abstracts for all talks will be published in the meeting programme and will also be available at <http://cms.math.ca/CMS/Events/summer02/>.

Detailed instructions on the submission of abstracts may be found on the website.

### Important deadlines for submission of abstracts:

**Invited Speakers : April 1, 2002**

**Contributed Papers : May 15, 2002.**

### Registration

The registration form will appear in the **February 2002** issue of the *CMS Notes*. **Electronic pre-registration** is also available at <http://www.cms.math.ca/CMS/Events/summer02/forms.html>.

Payment for preregistration may be made by cheque, or by VISA or MasterCard. Although registration fees are given in Canadian dollars, delegates may send cheques in US dollars by contacting their financial institution for the current exchange rate.

Please note that **payment must be RECEIVED IN OTTAWA on or before May 1 in order to qualify for reduced rates**. In order for your payment to be processed before the meeting, it should be received by May 31.

	Before May 1	After May 1
Delegate's Luncheon included		
Plenary speakers/prize lecturers	\$ 0	\$ 0
Session speakers	215	215
Organizers	145	145
Non-members	430	560
CMS/AMS/MAA members with grants	290	375
CMS/AMS/MAA members without grants	145	190
One-day fee	195	255
Postdocs, retired	110	145
Teachers (K-12, CEGEP), students, unemployed	55	70
Banquet (free for plenary/prize speakers)	50	50

CMS = Canadian Mathematical Society  
AMS = American Mathematical Society  
MAA = Mathematical Association of America

### Refund Policy

Delegates wishing to cancel their registration must notify the CMS Executive Office **in writing before May 31** to receive a refund less a \$40 processing fee. Those whose

contributed paper has not been accepted will upon request be fully refunded.

### Accommodation

It is recommended that those attending the conference book early to avoid disappointment. Blocks of rooms have been reserved at the locations given below and will be held until the deadlines specified below. Reservations not made by that date will be on a request only, space available basis. Rates are per room, per night and are quoted in Canadian dollars. Where applicable, and in order for your room to be applied against our block, please quote the group code. More detailed information about accommodation choices and reservation forms are available on the website.

#### Chateau Bonne Entente

3400, chemin Sainte-Foy,  
Québec (Québec) Canada G1X 1S6  
Check-in: 3:00 p.m.; Check-out: 1:00 p.m.  
Applicable taxes: GST (7%), PST (7.5%)  
**Deadline: May 4, 2002—Group Code: ULMATHS**  
Phone: 418-653-5221; toll-free: 800-463-4390  
FAX: 418-653-3098  
<http://www.chateaubonneentente.com/>  
E-mail: [hotel@chateaubonneentente.com](mailto:hotel@chateaubonneentente.com)  
Parking: free

Rates: \$79, motel section, single/double occupancy  
\$135, luxury section, single/double occupancy  
\$165, superior section, single/double occupancy  
Other room types and suites are also available.  
(Children 12 yrs old and under sharing parents' accommodation are complimentary.)

#### Hotel Quartier

2955, Boulevard Laurier,  
Sainte-Foy (Québec) Canada G1V 2M2  
Check-in: 3:00-4:00 p.m.; Check-out: 12:00 noon  
Applicable taxes: GST (7%), PST (7.5%)  
**Deadline: May 10, 2002—Group Code: 1306soc**  
Phone: 418-650-1616; Toll-free: 1-888-818-5863  
FAX: 418-650-6611  
<http://www.hotelquartier.com/>  
E-mail: [info@hotelquartier.com](mailto:info@hotelquartier.com)  
Parking: free; Local calls: free  
Rates: \$69, single/double occupancy  
(Children 11 yrs old and under sharing parents' accommodation are complimentary.)

#### Hotel Universel

2300, chemin Ste-Foy,  
Sainte-Foy (Québec) Canada G1V 1S5  
Check-in: 3:00 p.m.; Check-out: 12:00 noon  
Applicable taxes: Hotel tax (\$2 per night) + GST (7%),  
PST (7.5%)  
**Deadline: May 10, 2002—Group Code: Réunion d'été 2002**  
Phone: 418-653-5250, toll-free: 800-463-4495  
FAX: 418-653-4486  
<http://www.hoteluniversel.qc.ca/>  
E-mail: [info@hoteluniversel.qc.ca](mailto:info@hoteluniversel.qc.ca)

Parking: free  
Rates: \$75, single/double occupancy  
\$10, each additional person  
(Children 16 yrs old and under sharing parents'  
accommodation are complimentary.)

#### **Laval University Residences**

Summer Housing, Local 1618,  
pavillon Alphonse-Marie-Parent  
Cité universitaire, Québec (Québec) Canada G1K 7P4  
Check-in: 2:00 p.m.; Check-out: 11:00 a.m.  
Applicable taxes: GST (7%), PST (7.5%)

**Deadline: May 10, 2002 Group Code: 80181**

Phone: 418-656-5632

FAX: 418-656-2335

<http://www.ulaval.ca/sres/>

E-mail: [hebergement@sres.ulaval.ca](mailto:hebergement@sres.ulaval.ca)

Parking: free (ask for parking permit)

Rates: \$38, single occupancy, (incl. breakfast & daily  
linen change)

#### **Child Care**

The following information was provided by the three meeting hotels. Advance research and arrangements are recommended. The **Chateau Bonne Entente** does provide in house child care services. Please contact the hotel directly at 418-653-5221 to make enquiries. Both the **Hotel Quartier** and **Hotel Universel** recommend the firm of Service de gardiennes et d'aides familiale de Québec, 1323 Ave Maguire, local 102, Sillery G1T 1Z2. Please contact them directly at 418-659-3778. After normal business hours, please call 418-576-8258. There is no current information regarding child care options at the **University Residences**. Updates will be posted to our website as they become available.

#### **Travel and Parking**

This historic city is a great vacation spot and we hope you will take the opportunity to bring your family, stay a few extra days, and really enjoy this beautiful city. Detailed information regarding Laval University and Québec City, including links to tourism information are available on the website. For those not staying at Laval Residences, campus parking near the conference site is by means of a Pay and Display system. We recommend that you have change available for the parking permit dispensers.

#### **Acknowledgements**

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- Université Laval, Department of Mathematics & Statistics

- The National Programme Committee (a joint funding body of the Centre de recherches mathématiques, The Fields Institute for Research in Mathematical Sciences, and The Pacific Institute for the Mathematical Sciences)

#### **Meeting Committee**

##### **Programme**

*Meeting Director:* Claude Levesque (Laval); A. Akbary (Lethbridge), B. Alspach (Regina), I. Assem (Sherbrooke), C. Chauve (UQAM), J. Chen (UBC), S. Corteel (CNRS et UQAM), D. Dawson (Carleton U.), F. Gourdeau (Laval), B. R. Hodgson (Laval), F. Huard (Bishop's), J. Hyndman (UNBC), O. Kihel (Lethbridge), N. Lacroix (Laval), P. Leroux (UQAM), H. Manouzi (Laval), K. Murty (Toronto), R. Paré (Dalhousie), M. Radin (RIT), T. Ransford (Laval), P. Sastry (Toronto), G. Slade (UBC), D. Stinson (Waterloo), H. Williams (Calgary), S. Wismath (Lethbridge), Graham Wright (CMS ex-officio).

##### **Local Arrangements**

*Chair:* Jean-Pierre Carmichael (Laval); Monique Bouchard (CMS ex-officio).