

トポロジ - ニュース

1985年 3月号

1. '85年度位相分科会評議員:

松本幸夫氏(東大・理), 向井純夫氏(信州大・養)

(現評議員 水谷忠良氏, 故岡七郎氏今年度中御苦労様でした。)

2. 昭和59年度科研費総合(A)代表者 筥尾靖也氏からの報告とお知らせ。(重要) 次頁に掲載。

3. 九州大学助教授 岡七郎氏は10月30日に急性心不全により逝去しました。

4. Preprints 紹介。(3頁以降)。

尚, ぶらって記事をお送り下さるようお願いいたします。

・「位相幾何学の総合的研究」

これは59年度科研費総合(A)によるトポロジー関係の研究課題でした。どんな研究が行なわれたかなど、一応の説明をさせて頂きたいと思えます。計画は次の四つの分野にわかれて実行されて相応の成果が得られたものと思えます。

- 1] 位相幾何学シンポジウム (山形大学)
- 2] 分担者による研究集会 (, , , シンポ・ジュウム)
  - 1) 力学系理論 (八王子セミナーハウス)
  - 2) 城崎シンポジウム (城崎)
  - 3) General Topology (筑波大学)
  - 4) 結び目理論 (神戸大学)
  - 5) 微分可能多様体論 (京都セミナーハウス)
  - 6) 変換群論 (伊豆長岡)
  - 7) 葉層構造論 (熱海)
  - 8) ホモトピー論
- 3] プロジェクトによる研究集会
  - 1) 位相幾何学と幾何構造 (東北大学)
  - 2) 無限次元複体のホモトピー論 (大阪市立大学文化交流センター)
  - 3) 4次元多様体と複素曲面 (熱海)
  - 4) 無限群と幾何学 (熱海)
  - 5)  $C^\infty$ -写像の特異点とその周辺 (伊豆大川)
- 4] 各大学への研究連絡上からの研究者の派遣

3)については、準公募の形式をとりましたところ、合計15件の提案がありまして、分担者会議で上記5件の採用を決めました。採用にならなかったものについては、分担者の研究集会で考慮して頂くようお願いしました。従来の方式についての反省から出発した59年度でしたが、期待した成果が得られたかどうかは早急の判断は避けて、60年度(本研究課題は継続で60年度もひきつづき遂行することになっています)も本年度の方式に準じ、特に3]や4]の方式について拡大できれば良いのではと、分担者のあいだで話し合っていたと思っています。トポロジーニュースを使って、いろいろお知らせすることが有ると思えますので、本ニュースにご注意ください。

文責 笹尾 靖也

Advanced Studies in Pure Mathematics, Vol. 5, FOLIATIONS

Foliations and  $C^*$  Algebras

Paul Baum and Alain Connes — Leafwise Homotopy Equivalence and Rational Pontrjagin Classes

Toshikazu Natsume — Topological K-Theory for Codimension One Foliations without Holonomy

Haruo Suzuki — Lift Foliations in Flat Principal Bundles and Modular Functions

Characteristic Classes and Cobordisms of Foliations

Takashi Tsuboi — On the Homology of Classifying Spaces for Foliated Products

Tadayoshi Mizutani — Foliated Cobordisms of PA Foliations

Nobuo Tsuchiya — On Decompositions and Approximations of Foliated Manifolds

Yoshihiko Mitsumatsu — A Relation between the Topological Invariance of the Godbillon-Vey Class and the Differentiability of Anosov Foliations

Shigeyuki Morita — Discontinuous Invariants of Foliations

Tôru Tsujishita — Characteristic Classes for Families of Foliations

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Itiro Tamura — Dynamical Systems on Foliations and Existence  
Problem of Transverse Foliations

Atsushi Sato — Every 3-Manifold Admits a Transverse Pair of  
Codimension One Foliations which Cannot Be Raised to a Total  
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Shigenori Matsumoto — Foliations of Seifert Fibered Spaces over  $S^2$

Koichi Yano — Non-Singular Morse-Smale Flows on 3-Manifolds which  
Admit Transverse Foliations

Koichi Yano — Asymptotic Cycles on Two Dimensional Manifolds

Stability and Topology of Leaves

Takashi Inaba — A Sufficient Condition for the  $C^2$ -Reeb Stability  
of Noncompact Leaves of Codimension One Foliations

Toshiyuki Nishimori — Average Euler Characteristic of Leaves of  
Codimension One Foliations

Kazuhiko Fukui — Perturbations of Compact Foliations

Germes of Foliations

Tatsuo Suwa — Determinacy of Analytic Foliation Germes

Hiroko Kawabe — On the Conjugation of Local Diffeomorphisms  
Infinitely Tangent to the Identity

以上, 東大・理 矢野公一氏

足立正久氏(京大理)

Tzee-Char Kuo and Pei-Xin Li: Blowing-up and Whitney (A)-regularity condition

Tzee-Char Kuo: Equisingularité blow-analytique et stratification

Joel Hass and Peter Scott: The existence of least area surfaces in 3-manifolds

Joel Hass(1) and J. H. Rubinstein(2): One-sided closed geodesics on surfaces

Joel Hass: Minimal surfaces in foliated manifolds

Joel Hass: Minimal surfaces in Seifert fiber spaces

A. Connes: Cyclic cohomology and the transverse fundamental class of a foliation

William P. Thurston: Hyperbolic structures on 3-manifolds, II: Surface groups and 3-manifolds which fiber over the circle

Richard T. Miller: Nielsen's viewpoint on geodesic laminations

N. Bourbaki: Séminaire (1983-84)

Steven P. Kerckhoff: The Nielsen realization problem

Michael Handel and William P. Thurston: New proofs of some results of Nielsen

Joan Birman and Elmar Vogt: Nielsen's theory of geodesic lamination of surfaces

Paul Baum and Alain Connes: Leafwise homotopy equivalence and rational Pontrjagin classes

Dennis Sullivan: Quasi-conformal homeomorphisms and dynamics III topological conjugacy classes of analytic endomorphisms

足立正久氏 (京大・理)

- William P. Thurston - Minimal stretch maps between hyperbolic surfaces  
" " A spine for Teichmüller space
- Richard Schoen - Conformal deformation of a Riemannian metric to constant scalar curvature
- M.F. Atiyah, F.R.S., and R. Bott - The Yang-Mills equations over Riemann surfaces
- Ronald J. Stern - Gauge theories as a tool for low dimensional topologists
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- Ronald Fintushel and Ronald J. Stern - So (3) - Connections and the topology of 4-Manifolds
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- James L. Kaplan, John Mallet-Paret, James A. Yorke - The Lyapunov dimension of a nowhere differentiable attracting torus
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- Ronald Fintushel and Ronald J. Stern - New invariants for homology 3-Spheres

中国论文 (版大理)

Fintushel, R. -Stern, R.J.

- [1]  $S^0(3)$ -connections and the topology of 4-manifolds. (33 pages)
- [2] Pseudo orbifolds (46 pages)

Stern, R.J.

- [1] Gauge theories as a tool for low dimensional topologists. (15 pages)

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- [1] 4-manifold problems. (16 pages)

Floyd, W.J.

- [1] Incompressible surfaces in 3-manifolds : The space of boundary curves. (19 pages)
- [2] Hyperbolic manifolds obtained by adding a 2-handle to a 3-manifolds with compressible boundary. (25 pages)

Aitchison, I.

- [1] Isotoping and twisting knots and ribbons. (3+74 pages, Ph.D. Thesis)

Thurston, W.P.

- [1] Minimal stretch maps between hyperbolic surfaces. (28 pages)
- [2] Hyperbolic structures on 3-manifolds : Overall logic. (6 pages)
- [3] A norm for the homology of 3-manifolds. (29 pages)
- [4] A space for Teichmüller space. (3 pages)
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- [1] Bemerkungen zu den Torsionszahlen (14 pages)

Montesinos, J.M.

- [1] Note on a result of Boileau-Zieschang. (12 pages)

Jones, V.F.R.

- [1] A polynomial invariants for knots via von Neumann algebras. (11 pages)

Oceanu, A.

- [1] A polynomial invariant for knots : A combinatorial and an algebraic approach. (8 pages)

Hoste, J.

- [1] A polynomial invariant for knots and links. (6 pages)

Birman, J.S.

- [1] On the Jones polynomial of closed 3-braids. (14 pages)

