

Aplikace matematiky

Summaries of Papers Appearing in this Issue

Aplikace matematiky, Vol. 15 (1970), No. 5, (390a)–(390b)

Persistent URL: <http://dml.cz/dmlcz/103310>

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MILOŠ PAVLÍK, Dolný Kubín: *Approximate construction of a two-dimensional confidence region.* Apl. mat. 15 (1970), 305—309. (Original paper.)

If a sufficiently large random sample is taken from a population with known distribution, depending upon a couple ζ of parameters, so that Pearson χ^2 criterion is applicable to test the agreement between the observed and the expected sample class frequencies, and if the χ^2 statistic is considered to be a random function defined on the space \mathfrak{G} of all admissible ζ values, then the region in \mathfrak{G} on which χ^2 is less than its 100α per cent critical value, constitutes an approximately $100(1 - \alpha)$ per cent level confidence region for the true population value ζ_0 of ζ . Under certain general conditions this region always exists and lies within a closed curve the graphic construction of which is not very difficult if the expected sample class frequencies in a sufficiently large area in \mathfrak{G} , surrounding the maximum likelihood or the χ^2 minimum estimate of ζ_0 , are known.

SUBHASH CHANDRA GHOSH, Calcutta, India: *Thermal stresses in an initially stressed circular cylinder with a smooth rigid insulating cover on the curved surface.* Apl. mat. 15 (1970), 310—320. (Original paper.)

The expressions for the thermal stresses in an initially stressed isotropic finite cylinder with a smooth rigid insulating cover on the curved surface have been obtained when the plane ends of the cylinder have prescribed temperature distributions. Numerical results have also been deduced showing the variation of $[U_{\theta\theta}]_{r=1}$ for the particular material known as Mooney type material when the temperature distributions on the plane ends are either constant or paraboloidal.

PAVEL GALAJDA, Košice: *Všeobecná metóda zostrojovania spojnicových nomogramov pomocou kritických bodov.* (Галайда Павел: Общий метод построения номограмм из выравненных точек по методу критических точек.) Apl. mat. 15 (1970), 321—327. (Оригинальная статья.)

В статье разработано номографирование систем уравнений специального вида по методу критических точек.

ROSTISLAV ZEZULA, Praha: *Criticality conditions for a finite homogenized natural-uranium fueled reactor with prescribed thermal neutron flux*. Apl. mat. 15 (1970), 328–338. (Original paper.)

In the paper the following problem of the nuclear reactor theory is mathematically formulated (in the two-group diffusion approximation and for multidimensional geometries): For a prescribed flux Φ of thermal neutrons in the core Ω of the finite homogenized reactor the distribution $M(x)$ of the fuel concentration in Ω which induces this given flux Φ in the reactor core Ω is to be determined. The conditions (in particular on the form of the boundary $\hat{\Omega}$ of the core Ω as well as of the boundary \hat{A} of its reflector A) are given which are sufficient for the existence of a unique solution of this problem and, especially, also for the existence of a unique solution in the special case of flattened thermal neutron flux $\Phi = \Phi_0 = \text{const}$ in the reactor core Ω which is of practical significance for it yields the minimum of the critical mass.

JOZEF ZÁMOŽÍK, Bratislava: *Raster in der Perspektive*. Apl. mat. 15 (1970), 339–351. (Originalartikel.)

Unter dem Raster verstehen wir hier eine Vorlage, mit deren Hilfe man durch die Punktkonstruktion die sog. konische und auch lineare Perspektive der gegebenen Gebilde aus ihrer Mongeschen Projektion zeichnen kann.

IVAN ŮLEHLA, JAN WIESNER, Praha: *Remark to the problem of eigenvalues of Schrödinger equation*. Apl. mat. 15 (1970), 352–355. (Original paper.)

In the present paper an effective method of the determination of the number of eigenvalues in Schrödinger equation is given.

FRANTIŠEK ZÍTEK, Praha: *Über die Kundenreihenfolge in Bedienungssystemen*. Apl. mat. 15 (1970), 356–383. (Originalartikel.)

Es werden Änderungen der Kundenreihenfolge in Bedienungssystemen des Typs $M/M/n$ untersucht. Die Reihenfolge der Kunden ändert sich einerseits bei gleichzeitiger Bedienung mehrerer Kunden in parallel arbeitenden Bedienungsstellen, andererseits auch dann, wenn in der Warteschlange eine von der natürlichen verschiedene Warteordnung gilt; hier werden besonders die von O. Vašíček eingeführten Warteordnungen mit Überholungen bei dem Einreihen betrachtet.