**MR2542298** 26D15
**Liu, Wenjun [Liu, Wen Jun[3]]** (PRC-NUIST-MP);
**Quốc-Anh Ngô [Ngô, Quốc Anh]** (VN-VNU-NS); **Vu Nhat Huy** (VN-VNU-NS)
**Several interesting integral inequalities. (English summary)**
*J. Math. Inequal.* **3** (2009), *no. 2,* 201–212.

{A review for this item is in process.}





**MR2536811** 26D15 (65D30)
**Huy, Vu Nhat [Vu Nhat Huy]** (VN-VNU-NS); **Ngô, Quốc-Anh** (VN-VNU-NS)
**New inequalities of Ostrowski-like type involving $n$ knots and the $L^p$-norm of the $m$-th derivative. (English summary)**
*Appl. Math. Lett.* **22** (2009), *no. 9,* 1345–1350.

{A review for this item is in process.}





**MR2536655** 26A24 (39A10)
**Ngô, Quôć-Anh** (VN-VNU-NS)
**Some mean value theorems for integrals on time scales. (English summary)**
*Appl. Math. Comput.* **213** (2009), *no. 2,* 322–328.

{There will be no review of this item.}

**MR2513599** 35J60 (35J20 58E05)
**Ngô, Quốc-Anh** (VN-VNU-NS)
**Existence results for a class of non-uniformly elliptic equations of $p$-Laplacian type. (English summary)**
*Anal. Appl. (Singap.)* **7** (2009), *no. 2,* 185–197.

{A review for this item is in process.}

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11. P. de Nápoli and M. C. Mariani, Mountain pass solutions to equations of $p$-Laplacian type, *Nonlinear Anal.* **54** (2003) 1205–1219. MR1995926 (2004e:35065)
12. Q.-A. Ngô and H. Q. Toan, Existence of solutions for a resonant problem under Landesman-Lazer conditions, *Electron. J. Differential Equations* **2008** (2008) No. 98, 10 pp. MR2430895 (2009h:35149)
13. Q.-A. Ngô and H. Q. Toan, Some remarks on a class of nonuniformly elliptic equations of $p$-Laplacian type, *Acta Appl. Math.* (2008); doi:10.1007/s10440–008-9291–6. MR2497405

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16. H. Q. Toan and Q.-A. Ngô, Multiplicity of weak solutions for a class of nonuniformly elliptic equations of $p$-Laplacian type, *Nonlinear Anal.* **70** (2009) 1536–1546. MR2483577

*Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.*





**MR2497405** 35J60 (47J30 58E05)
**Ngô, Quốc Anh** (VN-VNU); **Toan, Hoang Quoc [Hoàng Quốc Toan]** (VN-VNU)
**Some remarks on a class of nonuniformly elliptic equations of $p$-Laplacian type. (English summary)**
*Acta Appl. Math.* **106** (2009), *no. 2,* 229–239.

{A review for this item is in process.}

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*Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.*





**MR2483577** 35J60 (35D05 35J20 47J30)

**Toan, Hoang Quoc [Hoàng Quốc Toan]** (VN-VNU-NS); **Ngô, Quốc-Anh** (VN-VNU-NS)

**Multiplicity of weak solutions for a class of nonuniformly elliptic equations of $p$-Laplacian type. (English summary)**

*Nonlinear Anal.* **70** (2009), *no. 4,* 1536–1546.

{A review for this item is in process.}

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**MR2471390 (2009j:26033)** 26D15 (39A10)

**Ngô, Quốc Anh** (VN-VNU-NS); **Liu, Wenjun [Liu, Wen Jun[3]]** (PRC-NUIST-MP)

**A sharp Grüss type inequality on time scales and application to the sharp Ostrowski-Grüss inequality. (English summary)**

*Commun. Math. Anal.* **6** (2009), *no. 2,* 33–41.

In this paper the authors prove sharp Grüss and weighted Grüss type inequalities for general time scales. A sharp Grüss type inequality is used in proving the sharp Ostrowski-Grüss inequality on time scales. The authors obtain well-known and new results by applying the sharp Grüss type inequality in different time scales $\mathbb{T} = \mathbb{R}$, $\mathbb{Z}$ and $q^{\mathbb{N}_0}$.

Reviewed by *Hassan Ahmed Agwo*





**MR2479697** 35J60 (35J55)

**Cardoulis, Laure** (F-TOUL-CR); **Ngô, Quốc Anh** (VN-VNU-MIS);
**Toan, Hoang Quoc [Hoàng Quốc Toan]** (VN-VNU-MIS)

**Existence of non-negative solutions for cooperative elliptic systems involving Schrödinger operators in the whole space. (English summary)**

*Rostock. Math. Kolloq. No. 63* (2008), 63–77.

{A review for this item is in process.}





**MR2465495 (2009j:26030)** 26D15 (39A10 65D30)

**Liu, Wenjun [Liu, Wen Jun[3]]** (PRC-NUIST-MP);
**Quốc Anh Ngô [Ngô, Quốc Anh]** (VN-VNU-NS); **Chen, Wenbing** (PRC-NUIST-MP)

**A perturbed Ostrowski-type inequality on time scales for $k$ points for functions whose second derivatives are bounded. (English summary)**

*J. Inequal. Appl.* **2008,** *Art. ID* 597241, 12 *pp.*

In this paper the authors derive an Ostrowski-type inequality for $k$ points on arbitrary time scales. This result generalizes the corresponding continuous time result from [A. Sofo and S. S. Dragomir, Turkish J. Math. **25** (2001), no. 3, 379–412; MR1864141 (2002h:41048)]. The discrete time result is new. The main result is also an extension of this type of result from the number of points $k = 2$ in [Q. A. Ngô and W. J. Liu, "An Ostrowski type inequality on time scales for functions whose second derivatives are bounded", in *Inequality theory and applications. Vol. 6*, to appear]. A very similar result to the one in this paper can be found in [Appl. Math. Comput. **203** (2008), no. 2, 754–760; MR2458991], where Liu and Ngô considered the boundedness of the first-order derivative $f^{\Delta}$ compared to the boundedness of the second-order derivative $f^{\Delta\Delta}$ in the present paper. The method of proof is the same as the method for the continuous time case. Examples of special perturbed

Ostrowski-type inequalities on time scales (as consequences of the main result) are given in the last section of the paper.

Reviewed by *Roman Šimon Hilscher*





**MR2458991** 26D15 (39A10)
**Liu, Wenjun [Liu, Wen Jun[3]]** (PRC-NUIST-MP); **Ngô, Quõc-Anh** (VN-VNU-NS)
**A generalization of Ostrowski inequality on time scales for $k$ points. (English summary)**
*Appl. Math. Comput.* **203** (2008), *no. 2,* 754–760.

{There will be no review of this item.}





**MR2458264 (2009g:26028)** 26D15 (26A06)
**Ngô, Quốc-Anh** (VN-VNU-NS); **Qi, Feng** (PRC-HNPU-MIT);
**Thu, Ninh Van [Ninh Van Thu]** (VN-VNU-NS)
**New generalizations of an integral inequality. (English summary)**
*Real Anal. Exchange* **33** (2008), *no. 2,* 471–474.

The authors prove the following result: Let $f\colon [a,b]\to[0,\infty)$ be a continuous function and $g\colon [a,b]\to[0,\infty)$ be a continuous non-decreasing function such that

$$\int_x^b f(t)\,dt \ge \int_x^b g(t)\,dt \tag{1}$$

for all $x\in[a,b]$. Then

$$\int_a^b h(f(t))\,dt \ge \int_a^b h(g(t))\,dt \tag{2}$$

holds for every convex function $h$ such that $h'\ge 0$ and $h'$ is integrable on $[0,\infty)$. In the case in which $f$ is as above and $g\colon [a,b]\to[0,\infty)$ is a continuous non-increasing function such that the reverse of (1) holds, inequality (2) is valid for every convex function $h$ such that $h'\le 0$ and $h'$ is integrable on $[0, \infty)$.

Reviewed by *Stamatis Koumandos*





**MR2430895 (2009h:35149)** 35J60 (35J20 47J30 58E05)
**Ngô, Quốc Anh** (VN-VNU-NS); **Toan, Hoang Quoc [Hoàng Quốc Toan]** (VN-VNU-NS)
**Existence of solutions for a resonant problem under Landesman-Lazer conditions. (English summary)**
*Electron. J. Differential Equations* **2008,** *No.* 98, 10 *pp.*

Summary: "This article shows the existence of weak solutions in $W_0^1(\Omega)$ for a class of Dirichlet problems of the form

$$-\mathrm{div}(a(x, \nabla u)) = \lambda_1 |u|^{p-2} u + f(x, u) - h$$

in a bounded domain $\Omega \subset \mathbb{R}^N$. Here $a : \Omega \times \mathbb{R}^N \to \mathbb{R}^N$ satisfies

$$|a(x, \xi)| \le c_0(h_0(x) + h_1(x)|\xi|^{p-1}),$$

for all $\xi \in \mathbb{R}^N$, a.e. $x \in \Omega$, in which $h_0 \in L^{\frac{p}{p-1}}(\Omega)$, $h_1 \in L^1_{\mathrm{loc}}(\Omega)$ satisfies $h_1(x) \ge 1$ for a.e. $x \in \Omega$, $\lambda_1$ is the first eigenvalue for $-\Delta_p$ on $\Omega$ with zero Dirichlet boundary condition and $f$ and $h$ satisfy some suitable conditions."

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*Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.*





**MR2320614 (2008e:26023)** 26D15
**Quô´c Anh Ngô [Ngô, Quốc Anh]** (VN-VNU-MIS); **Pham Huy Tung** (5-MELB-MS)
**Notes on an open problem of F. Qi and Y. Chen and J. Kimball. (English summary)**
*JIPAM. J. Inequal. Pure Appl. Math.* **8** (2007), *no. 2, Article* 41, 4 *pp.* (*electronic*).

In this paper the authors give an answer to an open problem proposed by F. Qi [JIPAM. J. Inequal. Pure Appl. Math. **1** (2000), no. 2, Article 19, 3 pp. (electronic); MR1786406 (2001e:26036)] and Y. Chen and J. F. Kimball [JIPAM. J. Inequal. Pure Appl. Math. **7** (2006), no. 1, Article 4, 4 pp. (electronic); MR2217167 (2007b:26032)]. In Theorem 2.2 the authors prove the following: Let $n$ be a positive integer. Suppose $f(x)$ has a continuous derivative of the $n$-th order on the interval $[a, b]$ such that $f^{(i)}(a) = 0$, where $0 \leq i \leq n-1$, and $f^{(n)}(x) \geq \frac{n!}{(n+1)^{(n-1)}}$. Then

$$\int_a^b f^{n+2}(x)\,dx \geq \left(\int_a^b f(x)\,dx\right)^{n+1}.$$

In this theorem the authors use a technique that was introduced by Qi [op. cit.].

Reviewed by *Božidar Tepeš*





**MR2268574 (2007g:26035)** 26D15

**Ngô, Quô'c Anh** (VN-VNU-MIS); **Thang, Du Duc [Du Duc Thang]** (VN-VNU-MIS);
**Dat, Tran Tat [Tran Tat Dat]** (VN-VNU-MIS);
**Tuan, Dang Anh [Dang Anh Tuan]** (VN-VNU-MIS)

**Notes on an integral inequality. (English summary)**

*JIPAM. J. Inequal. Pure Appl. Math.* **7** (2006), *no. 4, Article* 120, 5 *pp*. (*electronic*).

From the introduction: "Let $f(x)$ be a continuous function on $[0, 1]$ satisfying

$$\int_x^1 f(t)dt \geq \frac{1-x^2}{2}, \quad \forall x \in [0, 1]. \tag{1.1}$$

First, we consider the integral inequality (1.2) below. Lemma 1.1. If (1.1) holds then we have

$$\int_0^1 [f(x)]^2 dx \geq \int_0^1 x f(x) dx. \tag{1.2}$$

"The aim of this paper is to generalize (1.2) in order to obtain some new integral inequalities. In the first part of this paper, we will prove Lemma 1.1 and present some preliminary results. Our main results are Theorem 2.1 and Theorem 2.2, which will be proved in Section 2; and Theorem 3.2 and Theorem 3.3, which will be proved in Section 3. Finally, an open question is proposed."

**MR2181273 (2006e:35077)** 35J55 (35J50 35J60)
**Ngô, Quốc Anh** (VN-VNU-MIS)
**An application of the Lyapunov-Schmidt method to semilinear elliptic problems. (English summary)**
*Electron. J. Differential Equations* **2005,** *No*. 129, 11 *pp*. (*electronic*).

Summary: "In this paper we consider the existence of nonzero solutions for the undecoupling elliptic system

$$-\Delta u = \lambda u + \delta v + f(u,v),$$
$$-\Delta v = \theta u + \gamma v + g(u,v),$$

on a bounded domain of $\mathbb{R}^n$, with zero Dirichlet boundary conditions. We use the Lyapunov-Schmidt method and the fixed-point principle."

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*Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.*