

C U R R I C U L U M V I T A E

NIKOLAI GORELENKOV

- Present Affiliation:** Princeton Plasma Physics Laboratory,
Princeton University
- Scientific degree:** PhD, 30 March, 1993,
Russian scientific center “Kurchatov Institute”.
Thesis: “Neoclassical Alpha Particle Distribution
Function and Instabilities of Alfvén Eigenmodes
in Tokamak Plasmas”.
Adviser: Dr. Putvinski S.V.
- Education:**
- 1990 to 1993:** Post-graduate student at Russian Scientific Center
“Kurchatov Institute”;
- 1982 to 1988:** Undergraduate student at Moscow State University,
Physics Department.
- Employment:**
- 09/1999 up to now** Research Staff (III) at Princeton Plasma
Physics Laboratory
- 09/1993 to 06/1994,
& 02/1995 to 09/1999** Visiting Research Scholar at PPPL under
US/Russia exchange program
- 1988 to 1999:** Research Fellow, TRINITI, Troitsk Institute
for Innovative and Fusion Research, Troitsk
Moscow region, Russia, 142092

Scientific interests:

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| 2003 to 2006 | Nonperturbative hybrid kinetic/MHD computations of plasma instabilities. Burning plasma thermonuclear instabilities in ITER.
Physics of “see of Alfven modes” in DIII-D.
Fishbones in JET.
Nonlinear fast ion transport. |
| 2001 to 2002 | New CAE theory and its application to high frequency instabilities in NSTX. Stochastic multi CAE mode heating of thermal ions. HINST and NOVA application to burning plasma experiments to compute the most unstable modes and the number of unstable modes to evaluate the effect of the “sea“ of Alfven mode.
Collaboration with JET, DIII-D, and JT-60U on TAE excitation and induced fast particle transport. |
| 2000 to 2001 | Application of NOVA-K, HINST to major international tokamaks, such as TFTR, JET, JT60-U, DIII-D in the area of fast particle physics and its effects on plasma stability. Particle transport during the internal reconnection events in tokamaks. Sub-ion cyclotron oscillations in NSTX. |
| 1995 to 1999: | Study of fusion product behavior in TFTR DT experiments such as trapped particle confinement measurements by PCX diagnostic, Alfvén instability excitation, sawtooth alpha particle redistribution.
PPPL - JET Collaboration on $n = 1$ stability and NPA effects on fast particles. Kinetic extension of NOVA code. |
| 1993 to 1994: | Ion cyclotron emission from tokamaks as a collective instability and application to tritium experiments in Tokamak Fusion Test Reactor (TFTR). |
| 1988 to 1993: | Theoretical study of fast particle physics in tokamak plasmas including neoclassical distribution function of fusion products and their drive of various collective instabilities; |

Computer Skills: experience in MS-DOS, Windows, UNIX, X Windows;
FORTRAN, C programming languages;

Honors received: 1988 Graduated within the top 10% “red Diploma”
(cum laude) from Moscow state university.
1997 Russian State scientific excellence stipend
1993 ISF personal grant award.

Services Deputy leader of the TTF Fast Particle Working Group
(**2004**-present)
Energetic particle SFG leader (**2004**-present)
Theory steering committee member (**2005**-present)

LIST OF PUBLICATIONS AND PRESENTATIONS BY N.N.GORELENKOV

1 Journal publications

1. **Gorelenkov N. N.**; Putvinskii SV
Neoclassical distribution function in tokamak T-14
Fizika plasmy, [Sov.J.Plasma Phys.],v.15,p145-150 (**1989**)
2. **Gorelenkov N. N.**
Evolution of alpha particles distribution function in a tokamak with adiabatic comprassion
Fizika plasmy, [Sov.J.Plasma Phys.],v.16,p145-150 (**1990**)
3. **Gorelenkov N. N.**; Krasilnikov AV
Possibilities of alpha-particle diagnostics in future tokamaks using helium and lithium beam injection
Fusion Technology Vol 19, Iss 2, pp 207-216 (**1991**)
4. **Gorelenkov N. N.**; Sharapov SE
On the collisional damping of TAE-modes on trapped electrons in tokamaks
Physica Scripta Vol 45, Iss 2, pp 163-166 (**1992**)
5. **Gorelenkov N. N.**; Konovalov SV; Mirnov SV
Simulation of fusion alpha-component in a tokamak with He-3 plasma and high-power NBI
Physica Scripta, Vol 45, Iss 2, pp 180-183 (**1992**)
6. **Gorelenkov N. N.**
Effects of anisotropy on the alpha particle on stability of global Alfven waves in a tokamak
Fizika Plasmy,v.18,555-563(**1992**) [Sov. J. Plasma Phys, v.18, 289-293(**1992**)]
7. **Gorelenkov N. N.**
Thermonuclear anisotropy instability of high-n TAE modes on trapped alpha particles
Fizika Plasmy, V.19, p (**1993**)[Plasma Phys Rep., v.18, 404 (**1993**)]
8. Hosea J; Adler JH; Alling P; Ancher C; Anderson H; Anderson JL; Anderson JW; Arunasalam V; Ascione G; Ashcroft D; Barnes CW; Barnes G; Batha S; Bell MG; Bell R; Bitter M; Blanchard W; Bretz NL; Brunkhorst C; Budny R; Burgess T; Bush H; Bush CE; Camp R; Caorlin M; Carnevale H; Cauffman S; Chang Z; Cheng CZ; Chrzanowski J; Collins J; Coward G; Cropper M; Darrow DS; Dautert R; Delooper J; Duong H; Dudek L; Durst R; Efthimion PC; Ernst D; Faunce J; Fisher R; Fonck RJ; Fredd E; Fredrickson E; Fromm N; Fu GY; Furth HP; Garzotto V; Gentile C; Gettelfinger G; Gilbert J; Gioia J; Golian T; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hanson GR; Hawryluk RJ; Heidbrink W; Herrmann HW; Hill KW; Hsuan H; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kamperschroer J; Kesner J; Kugel H; Kwon S; Labik G; Lam NT; Lamarche PH; Lawson E; Leblanc B; Leonard M; Levine J; Levinton FM; Loesser D; Long D; Loughlin MJ; Machuzak J; Mansfield DK; Marchlik M; Marmar ES; Marsala R; Martin A; Martin G; Mastrocola V; Mazzucato E; Majeski R; Mauel M; Mccarthy MP; McCormack B; Mccune DC; Mcguire KM; Meade DM; Medley SS; Mikkelsen DR; Milora SL; Mueller D; Murakami M; Murphy JA; Nagy A; Navratil GA; Nazikian R; Newman R; Nishitani T; Norris M; Oconnor T; Oldaker M; Ongena J; Osakabe M; Owens DK; Park H; Park W; Paul SF; Pavlov YI; Pearson G; Perkins F; Perry E; Persing R; Petrov M; Phillips CK; Pitcher S; Popovichev S; Pysher R; Qualls AL; Raftopoulos S; Ramakrishnan R; Ramsey A; Rasmussen DA; Redi MH; Renda G; Rewoldt G; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Ruchov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scillia R; Scott SD; Senko T; Sissingh R; Skinner C; Snipes J; Snook P; Stencel J; Stevens J; Stevenson T; Stratton BC; Strachan JD; Stodieck W; Synakowski E; Tang W; Taylor G; Terry J; Thompson ME; Timberlake JR; Towner HH; Vonhalle A; Vannoy C; Wester R; Wieland R; Wilgen JB; Williams M; Wilson JR; Winston J; Wright K; Wong D;

Wong KL; Woskov P; Wurden GA; Yamada M; Yeun A; Yoshikawa S; Young KM; Zarnstorff MC; Zweben SJ

Deuterium-tritium experiments on the tokamak fusion test reactor

Fusion Technology, Vol 26, Iss 3, pp 389-398 (1994)

9. Strachan JD; Adler H; Alling P; Ancher C; Anderson H; Anderson JL; Ashcroft D; Barnes CW; Barnes G; Batha S; Bell MG; Bell R; Bitter M; Blanchard W; Bretz NL; Budny R; Bush CE; Camp R; Caorlin M; Cauffman S; Chang Z; Cheng CZ; Collins J; Coward G; Darrow DS; Delooper J; Duong H; Dudek L; Durst R; Efthimion PC; Ernst D; Fisher R; Fonck RJ; Frederickson E; Fromm N; Fu GY; Furth HP; Gentile C; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hanson GR; Hawryluk RJ; Heidbrink W; Herrmann HW; Hill KW; Hosea J; Hsuan H; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kamperschroer J; Kugel H; Lam NT; Lamarche PH; Loughlin MJ; Leblanc B; Leonard M; Levinton FM; Machuzak J; Mansfield DK; Martin A; Mazzucato E; Majeski R; Marmar E; Mcchesney J; McCormack B; McCune DC; McGuire KM; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mueller D; Murakami M; Nagy A; Nazikian R; Newman R; Nishitani T; Norris M; Oconnor T; Oldaker M; Osakabe M; Owens DK; Park H; Park W; Paul SF; Pearson G; Perry E; Petrov M; Phillips CK; Pitcher S; Ramsey AT; Rasmussen DA; Redi MH; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scott SD; Tang W; Taylor G; Terry JL; Thompson ME; Tuszewski M; Vannoy C; Vonhalle A; Vongoeler S; Voorhees D; Walters RT; Wieland R; Wilgen JB; Williams M; Wilson JR; Wong KL; Wurden GA; Yamada M; Young KM; Zarnstorff MC; Zweben SJ
Fusion power production from TFTR plasmas fueled with deuterium and tritium
Physical Review Letters, Vol 72, Iss 22, pp 3526-3529 (1994)
10. Hawryluk RJ; Adler H; Alling P; Ancher C; Anderson H; Anderson JL; Ashcroft D; Barnes CW; Barnes G; Batha S; Bell MG; Bell R; Bitter M; Blanchard W; Bretz NL; Budny R; Bush CE; Camp R; Caorlin M; Cauffman S; Chang Z; Cheng CZ; Collins J; Coward G; Darrow DS; Delooper J; Duong H; Dudek L; Durst R; Efthimion PC; Ernst D; Fisher R; Flonck RJ; Frederickson E; Fromm N; Fu GY; Furth HP; Gentile C; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hanson GR; Heidbrink W; Herrmann HW; Hill KW; Hosea J; Hsuan H; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kamperschroer J; Kugel H; Lam NT; Lamarche PH; Loughlin MJ; Leblanc B; Leonard M; Levinton FM; Machuzak J; Mansfield DK; Martin A; Mazzucato E; Majeski R; Marmar E; Mcchesney J; McCormack B; McCune DC; McGuire KM; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mueller D; Murakami M; Nagy A; Nazikian R; Newman R; Nishitani T; Norris M; Oconnor T; Oldaker M; Osakabe M; Owens DK; Park H; Park W; Paul SF; Pearson G; Perry E; Petrov M; Phillips CK; Pitcher S; Ramsey A; Rasmussen DA; Redi MH; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scott SD; Sissingh R; Skinner CH; Snipes J; Stevens J; Stevenson T; Stratton BC; Strachan JD; Synakowski E; Tang W; Taylor G; Terry JL; Thompson ME; Tuszewski M; Vannoy C; Vonhalle A; Vongoeler S; Voorhees D; Walters RT; Wieland R; Wilgen JB; Williams M; Wilson JR; Wong KL; Wurden GA; Yamada M; Young KM; Zarnstorff MC; Zweben SJ
Confinement and heating of a deuterium-tritium plasma
Physical Review Letters, Vol 72, Iss 22, pp 3530-3533 (1994)
11. Hawryluk RJ; Adler H; Alling P; Ancher C; Anderson H; Anderson JL; Anderson JW; Arunasalam V; Ascione G; Aschroft D; Barnes CW; Barnes G; Batchelor DB; Bateman G; Batha S; Baylor LA; Beer M; Bell MG; Biglow TS; Bitter M; Blanchard W; Bonoli P; Bretz NL; Brunkhorst C; Budny R; Burgess T; Bush H; Bush CE; Camp R; Caorlin M; Carnevale H; Chang Z; Chen L; Cheng CZ; Chrzanowski J; Collazo I; Collins J; Coward G; Cowley S; Cropper M; Darrow DS; Daugert R; Delooper J; Duong H; Dudek L; Durst R; Efthimion PC; Ernst D; Faunce J; Fonck RJ; Fredd E; Fredrickson E; Fromm N; Fu GY; Furth HP; Garzotto V; Gentile C; Gettelfinger G; Gilbert J; Gioia J; Goldfinger RC; Golian T; **Gorelenkov N. N.**; Gouge MJ; Grek B; Grisham LR; Hammett G; Hanson GR; Heidbrink W; Hermann HW; Hill KW; Hirshman S; Hoffman DJ; Hosea J; Hulse RA; Hsuan H; Jaeger EF; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kamperschroer J; Kesner J; Kugel H; Kwon S; Labik G; Lam NT; Lamarche PH; Laughlin MJ; Lawson E; Leblanc B; Leonard M; Levine J; Levinton FM; Loesser D; Long D; Machuzak J; Mansfield DE; Marchlik M; Marmar ES; Marsala R; Martin A; Martin G; Mastrocola

V; Mazzucato E; McCarthy MP; Majeski R; Mauel M; McCormack B; McCune DC; McGuire KM; Meade DM; Medley SS; Mikkelsen DR; Milora SL; Monticello D; Mueller D; Murakami M; Murphy JA; Nagy A; Navratil GA; Nazikian R; Newman R; Nishitani T; Norris M; Oconnor T; Oldaker M; Ongena J; Osakabe M; Owens DK; Park H; Park W; Paul SF; Pavlov Yi; Pearson G; Perkins F; Perry E; Persing R; Petrov M; Phillips CK; Pitcher S; Popovichev S; Qualls AL; Raftopoulos S; Ramakrishnan R; Ramsey A; Rasmussen DA; Redi MH; Renda G; Rewoldt G; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Sabbagh SA; Sasao M; Scharer J; Schilling G; Schivell J; Schmidt GL; Scillia R; Scott SD; Senko T; Sissingh R; Skinner C; Snipes J; Snook P; Stencel J; Stevens J; Stevenson T; Stratton BC; Strachan JD; Stodiek W; Swanson J; Synakowski E; Tang W; Taylor G; Terry J; Thompson ME; Timberlake JR; Towner HH; Ulrickson M; Vonhalle A; Vannoy C; Wieland R; Wilgen JB; Williams M; Wilson JR; Wright K; Wong D; Wong KL; Woskov P; Wurden GA; Yamada M; Yeun A; Yoshikawa S; Young KM; Zakharov L; Zarnstorff MC; Zweben SJ

Preparations for deuterium-tritium experiments on the tokamak fusion test reactor
Physics of Plasmas, Vol 1, Iss 5, pp 1560-1567 (1994)

12. **Gorelenkov N. N.**, Cheng CZ
Alfven cyclotron instability and ion cyclotron emission
Nuclear Fusion, Vol 35, Iss 12, pp 1743-1752 (1995)
13. **Gorelenkov N. N.**
Influence of kinetic effects on toroidicity-induced alfven eigenmodes
Plasma Physics Reports, Vol 21, Iss 6, pp 450-456 (1995)
14. **Gorelenkov N. N.**, Cheng CZ
Excitation of alfven cyclotron instability by charged fusion products in tokamaks
Physics of Plasmas, Vol 2, Iss 6, pp 1961-1971 (1995)
15. Bell MG; McGuire KM; Arunasalam V; Barnes CW; Batha SH; Bateman G; Beer MA; Bell RE; Bitter M; Bretz NL; Budny RV; Bush CE; Cauffman SR; Chang Z; Chang CS; Cheng CZ; Darrow DS; Dendy RO; Dorland W; Duong HH; Durst RD; Efthimion PC; Ernst D; Evenson H; Fisch NJ; Fisher RK; Fonck RJ; Fredrickson ED; Fu GY; Furth HP; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett GW; Hanson GR; Hawryluk RJ; Heidbrink WW; Herrmann HW; Hill KW; Hosea JC; Hsuan H; Hughes MH; Hulse RA; Janos AC; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kesner J; Kugel HW; Lam NT; Leblanc B; Levinton FM; Machuzak J; Majeski R; Mansfield DK; Mazzucato E; Mauel ME; McChesney JM; McCune DC; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mirnov SV; Mueller D; Navratil GA; Nazikian R; Owens DK; Park HK; Park W; Parks PB; Paul SF; Petrov MP; Phillips CK; Phillips MW; Pitcher CS; Ramsey AT; Redi MH; Rewoldt G; Roberts DR; Rogers JH; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell JF; Schmidt GL; Scott SD; Semenov I; Sesnic S; Skinner CH; Stratton BC; Strachan JD; Stodiek W; Synakowski EJ; Takahashi H; Tang WM; Taylor G; Terry JL; Thompson ME; Tighe W; vonGoeler S; White RB; Wieland RM; Wilson JR; Wong KL; Woskov P; Wurden GA; Yamada M; Young KM; Zarnstorff MC; Zweben SJ
Overview of DT results from TFTR
Nuclear Fusion, Vol 35, Iss 12, pp 1429-1436 (1995)
16. Petrov MP; Budny RV; Duong HH; Fisher RK; **Gorelenkov N. N.**; McChesney JM; Mansfield DK; Medley SS; Parks PB; Redi MH; Roquemore AL
Studies of energetic confined alphas using the pellet charge exchange diagnostic on TFTR
Nuclear Fusion, Vol 35, Iss 12, pp 1437-1443 (1995)
17. Cheng CZ; **Gorelenkov N. N.**; Hsu CT
Fast particle destabilization of toroidal Alfven eigenmodes
Nuclear Fusion, Vol 35, Iss 12, pp 1639-1650 (1995)
18. Johnson DW; Arunasalam V; Barnes CW; Batha SH; Bateman G; Beer M; Bell MG; Bell R; Bitter M; Bretz NL; Budny R; Bush CE; Cauffman S; Chang CS; Chang Z; Chang CZ; Darrow DS; Dendy R; Dorland W; Duong HH; Durst R; Efthimion PC; Ernst D; Evenson H; Fisch N; Fisher R; Fonck RJ; Fredrickson

E; Fu GY; Fujita T; Furth HP; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hawryluk RJ; Heidbrink W; Herrmann HW; Hill KW; Hosea J; Hsuan H; Hughes M; Janos A; Jassby DL; Jobes FC; Johnson LC; Kamperschroer J; Kesner J; Kotschenreuther M; Kugel H; LaMarche PH; LeBlanc B; Levinton FM; Machuzak J; Majeski R; Mansfield DK; Marmar ES; Mazzucato E; Mauel M; McChesney J; McGuire KM; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mirnov SV; Mueller D; Nazikian R; Osakabe M; Owens DK; Park H; Park W; Parks P; Paul SF; Petrov M; Phillips CK; Phillips M; Qualls AL; Ramsey A; Redi MH; Rewoldt G; Roberts D; Rogers J; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scott SD; Semenov I; Sesnic S; Skinner CH; Spong D; Stratton BC; Strachan JD; Stodiek W; Synakowski E; Takahashi H; Tang W; Taylor G; Terry J; vonHalle HA; vonGoeler S; White R; Wilson JR; Wong KL; Wurden GA; Young KM; Zarnstorff MC; Zweben SJ

Recent D-T results on TFTR

Plasma Physics and Controlled Fusion, Vol 37, pp A69-A85 (1995)

19. McGuire KM; Adler H; Alling P; Ancher C; Anderson H; Anderson JL; Anderson JW; Arunasalam V; Ascione G; Ashcroft D; Barnes CW; Barnes G; Batha S; Bateman G; Beer M; Bell MG; Bell R; Bitter M; Blanchard W; Bretz NL; Brunkhorst C; Budny R; Bush CE; Camp R; Caorlin M; Carnevale H; Cauffman S; Chang Z; Chang CS; Cheng CZ; Chrzanowski J; Collins J; Coward G; Cropper M; Darrow DS; Daugert R; Delooper J; Dendy R; Dorland W; Dudek L; Duong H; Durst R; Efthimion PC; Ernst D; Evenson H; Fisch N; Fisher R; Fonck RJ; Fredd E; Fredrickson E; Fromm N; Fu GY; Fujita T; Furth HP; Garzotto V; Gentile C; Gilbert J; Gioia J; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hanson GR; Hawryluk RJ; Heidbrink W; Herrmann HW; Hill KW; Hosea J; Hsuan H; Hughes M; Hulse R; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kalish M; Kamperschroer J; Kesner J; Kugel H; Labik G; Lam NT; Lamarche PH; Lawson E; Leblanc B; Levine J; Levinton FM; Loesser D; Long D; Loughlin MJ; Machuzak J; Majeski R; Mansfield DK; Marmar ES; Marsala R; Martin A; Martin G; Mazzucato E; Mauel M; McCarthy MP; Mcchesney J; McCormack B; McCune DC; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mirnov SV; Mueller D; Murakami M; Murphy JA; Nagy A; Navratil GA; Nazikian R; Newman R; Norris M; Oconnor T; Oldaker M; Ongena J; Osakabe M; Owens DK; Park H; Park W; Parks P; Paul SF; Pearson G; Perry E; Persing R; Petrov M; Phillips CK; Phillips M; Pitcher S; Pysheer R; Qualls AL; Raftopoulos S; Ramakrishnan S; Ramsey A; Rasmussen DA; Redi MH; Renda G; Rewoldt G; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scillia R; Scott SD; Semenov I; Senko T; Sesnic S; Sissingh R; Skinner CH; Snipes J; Stencil J; Stevens J; Stevenson T; Stratton BC; Strachan JD; Stodiek W; Swanson J; Synakowski E; Takahashi H; Tang W; Taylor G; Terry J; Thompson ME; Tighe W; Timberlake JR; Tobita K; Towner HH; Tuszewski M; Vonhalle A; Vannoy C; Viola M; Vongoeler S; Voorhees D; Walters RT; Wester R; White R; Wieland R; Wilgen JB; Williams M; Wilson JR; Winston J; Wright K; Wong KL; Woskov P; Wurden GA; Yamada M; Yoshikawa S; Young KM; Zarnstorff MC; Zaveriev V; Zweben SJ

Review of deuterium-tritium results from the tokamak fusion test reactor

Physics of Plasmas, Vol 2, Iss 6, pp 2176-2188 (1995)

20. Owens DK; Adler H; Alling P; Ancher C; Anderson H; Anderson JL; Ashcroft D; Barnes CW; Barnes G; Batha S; Bell MG; Bell R; Bitter M; Blanchard W; Bretz NL; Rudny R; Bush CE; Camp R; Caorlin M; Cauffman S; Chang Z; Cheng CZ; Collins J; Coward G; Darrow DS; Delooper J; Duong H; Dudek L; Durst R; Efthimion PC; Ernst D; Fisher R; Fonck RJ; Fredrickson E; Fromm N; Fu GY; Furth HP; Gentile C; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Hanson GR; Hawryluk RJ; Heidbrink W; Herrmann HW; Hill KW; Hosea J; Hsuan H; Janos A; Jassby DL; Jobes FC; Johnson DW; Johnson LC; Kamperschroer J; Kugel H; Lam NT; Lamarche PH; Loughlin MJ; Leblanc B; Leonard M; Levinton FM; Machuzak J; Mansfield DK; Martin A; Mazzucato E; Majeski R; Marmar E; Mcchesney J; McCormack B; McCune DC; McGuire KM; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mueller D; Murakami M; Nagy A; Nazikian R; Newman R; Nishitani T; Norris M; Oconnor T; Oldaker M; Osakabe M; Park H; Park W; Paul SF; Pearson G; Perry E; Petrov M; Phillips CK; Pitcher S; Raftopoulos S; Ramsey A; Rasmussen DA; Redi MH; Roberts D; Rogers J; Rossmassler R; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schivell J; Schmidt GL; Scott SD; Sissingh R; Skinner CH; Snipes J; Stevens J; Stevenson T; Stratton BC; Strachan JD; Synakowski E; Tang W; Taylor G; Terry JL; Thompson ME; Tuszewski M; Vannoy C; Vonhalle A; Vongoeler S; Voorhees D; Walters RT; Wieland R; Wilgen JB; Williams M; Wilson JR; Wong

KL; Wurden GA; Yamada M; Young KM; Zarnstorff MC; Zweben SJ
 Plasma-surface interactions in TFTR DT experiments
 Journal of Nuclear Materials, Vol 222, pp 62-72 (1995)

21. **Gorelenkov N. N.**; Budny RV; Chang Z; Gorelenkova MV; Zakharov LE
 A threshold for excitation of neoclassical tearing modes
 Physics of Plasmas, Vol 3, Iss 9, pp 3379-3385 (1996)

22. Hawryluk RJ; Barnes CW; Batha S; Beer M; Bell MG; Bell R; Berk H; Bitter M; Bretz NL; Budny R; Bush CE; Cauffman S; Chang CS; Chang Z; Cheng CZ; Darrow DS; Dendy R; Dorland W; Dudek L; Duong H; Durst R; Efthimion PC; Evenson H; Fisch N; Fisher R; Fonck RJ; Forrest C; Fredrickson E; Fu GY; Furth HP; **Gorelenkov N. N.**; Grek B; Grisham LR; Hammett G; Heidbrink W; Herrmann HW; Herrmann M; Hill KW; Hooper B; Hosea J; Houlberg WA; Hughes M; Jassby DL; Jobes FC; Johnson DW; Kaita R; Kamperschroer J; Kesner J; Krazilnikov A; Kugel H; Kumar A; LaMarche PH; LeBlanc B; Levine J; Levinton FM; Lin Z; Machuzak J; Majeski R; Mansfield DK; Mazzucato E; Mauel M; McChesney J; McGuire KM; McKee G; Meade DM; Medley SS; Mikkelsen DR; Mirnov SV; Mueller D; Navratil G; Nazikian R; Nevins B; Okabayashi M; Osakabe M; Owens DK; Park H; Park W; Paul SF; Petrov M; Phillips CK; Phillips M; Phillips P; Ramsey A; Redi MH; Rewoldt G; Rice B; Rogers J; Roquemore AL; Ruskov E; Sabbagh SA; Sasao M; Schilling G; Schmidt GL; Scott SD; Semenov I; Skinner CH; Spong D; Strachan JD; Strait EJ; Stratton BC; Synakowski E; Takahashi H; Tang W; Taylor G; vonGoeler S; vonHalle A; White RB; Williams MD; Wilson JR; Wong KL; Wurden GA; Young KM; Zarnstorff MC; Zweben SJ
 Review of D-T results from TFTR
 Fusion Technology, Vol 30, Iss 3, pp 648-659 (1996)

23. Medley SS; Budny RV; Mansfield DK; Redi MH; Roquemore AL; Fisher RK; Duong HH; McChesney JM; Parks PB; Petrov MP; **Gorelenkov N. N.**
 Measurements of confined alphas and tritons in the MHD quiescent core of TFTR plasmas using the pellet charge exchange diagnostic
 Plasma Physics and Controlled Fusion, Vol 38, Iss 10, pp 1779-1789 (1996)

24. Medley SS; Mansfield DK; Roquemore AL; Fisher RK; Duong HH; McChesney JM; Parks PB; Petrov MP; Khudoleev AV; **Gorelenkov N. N.**
 Design and operation of the pellet charge exchange diagnostic for measurement of energetic confined alpha particles and tritons on the Tokamak Fusion Test Reactor
 Review of Scientific Instruments, Vol 67, Iss 9, pp 3122-3135 (1996)

25. **Gorelenkov N. N.**; Budny RV; Duong HH; Fisher RK; Medley SS; Petrov MP; Redi MH
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6. **Gorelenkov NN**, et.al.
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Alfvén Eigenmodes Induced by High Energetic Ions in JT-60U.
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11. Bernabei S., ..., **Gorelenkov** NN, *et.al*
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13. **Gorelenkov** N.N., Fredrickson, E., Belova, E, Cheng, C.Z. , Gates, D., Kaye, S., White, R. "Theory and
Observation of Compressional Alfvén Eigenmodes in Low Aspect Ratio Plasma",
The proceedings of the 19th International Conference on Fusion Energy, Lyon, France, October **2002**
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17. D. S. Darrow,...**Gorelenkov**, N.N.,..., "Measurements and Modeling of Prompt, Non-Adiabatic, and
MHD-induced Fast Ion Loss from Spherical Tokamaks", *ibid*, Paper IAEA-CN-94/EX/P2-01
18. N. N. **Gorelenkov**, C. Z. Cheng, V.G. Kiptily, M. J. Mantsinen, S. E. Sharapov, "Fast Ion Effects on
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 - (b) OV/2-3 Kaye, S. M. Progress Towards High Performance Plasmas in the...
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2.2 European Physical Society Conference (EPS)

1. **Gorelenkov NN**, Romannikov AN
On the question of adiabatic R-contraction in a tokamak
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2. **Gorelenkov NN**, Polevoy A. R.,
Thermonuclear Instability of FMS modes in Tokamak,
in Controlled Fusion and Plasma Physics (Proc. 20st Eur. Conf. Lisabon, Portugal, 1993), Vol. 17C, 1355 (**1993**).
3. Petrov M. P., **Gorelenkov NN**, Budny R., Mansfield D. K., Medley S. S., Duong H. H., Fisher R. K., McChesney J. M., Parks P. B.,
Aspects of trapped confined alpha physics on TFTR
in Controlled Fusion and Plasma Physics (Proc. 23rd Eur. Conf. Kiev, 1996), Vol. 20C, 63 (**1996**).
4. Budny RV, Fu G. Y., **Gorelenkov N. N.**, Manickam J., Petrov M. P., Redi M. H., Sabbagh S., White R. B., Zakharov L. E., Zhao Y., Zweben S. J.,
Occurrence of Sawteeth in ITER and their Effects on Alpha Particles and Stability
ibid, 55 (**1996**).
5. Nave M. F. F., McClements K. G., Balet B., Borba D. N., Budny R., Gimblet C. G., **Gorelenkov N. N.**, Hastie J., Hender T. C., Lomas P., Manickam J., Thomas P., Smeulders P.,
Sawtooth stability in JET deuterium-tritium discharges.
in Controlled Fusion and Plasma Physics (Proc. 25th European Physical Society Conference Praha, Czech Rep., 1998), Vol. **22C**, 365 (**1998**)
6. **Gorelenkov N. N.**, Cheng C. Z., Gorelenkova M. V., Fu G. Y., and Nazikian R.,
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in Controlled Fusion and Plasma Physics (Proc. 26th European Physical Society Conference Maastricht, Netherlands, 1999), Vol. **23J**, 1717 (**1999**)
7. Akers R., McClements K. G., Sharapov S. E., Borba D. N., **Gorelenkov N. N.**, Gorelenkova M. V., Appel L. C., Gryaznevich M. P.,
Modelling of Toroidal Alfvén Eigenmodes and Fishbones in the START Spherical Tokamak
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8. **Gorelenkov N. N.**, Nave M. F. F., Budny R., Cheng C. Z., Fu G. Y., Hastie J., Manickam J., Park W.,
Effect of Plasma Rotation on Sawtooth Stabilization by Beam Ions.
in Controlled Fusion and Plasma Physics (Proc. 27th European Physical Society Conference Budapest, Hungary, 2000), Vol. **24B**, 1553 (**2000**)
9. K. McClements, Akers R., Appel L. C., Gryaznevich M. P., Gorelenkov N. N., and Gorelenkova M. V.,
Alfvén Eigenmodes in a Beam-Assisted Ohmic START Discharge.
ibid, 1509.
10. Yavorskij, V.A., Darrow, D., Goloborodko, V.Ya., Reznik, S.N., Holzmüller-Steinacker, U., **Gorelenkov N. N.**, Schoepf, K.
Fast Ion Transport Processes In Spherical Tokamaks Induced by Non-Conservation of the Magnetic Moment
in Controlled Fusion and Plasma Physics (Proc. 28th European Physical Society Conference Madaira, Spain, 2001), P5.025.
11. Fredrickson, E.D., **Gorelenkov, N.**, Cheng, C.Z., Bell, R., Darrow, D., Johnson, D., Kaye, S., LeBlanc, B., Menard, J., Kubota, S., Peebles, W.

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12. Pochelon, A., Angioni, C., Mantsinen, M., **Gorelenkov, N.N.**, McClements, O., Budny, de Vries, P.C., Howell, D.F., Nave, M.F.F., Sauter, O., Sharapov, S.E.,
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ibid, P5.009
13. E. V. Belova, **N. N. Gorelenkov**, C. Z. Cheng, R. C. Davidson, E. D.,
Fredrickson, Numerical study of instabilities driven by the energetic neutral beam ions in NSTX,
in Controlled Fusion and Plasma Physics (Proc. 30th European Physical Society Conference, St.Petersburgh,
Russia, 2003), P-3.102.
14. **N. N. Gorelenkov**, M. J. Mantsinen, S. E. Sharapov, C. Z. Cheng,
Modeling of ICRH H-minority driven n 1 resonant modes in JET
ibid, P-2.100.
15. **N. N. Gorelenkov**, E. V. Belova, C. Z. Cheng, E. Fredrickson,
Sub-cyclotron Instability of Alfvén Eigenmodes due to Energetic Ions in Low Aspect Ratio Plasmas
ibid, P-3.103.
16. **N.N. Gorelenkov**, S.S. Medley, “Modeling of low frequency in NSTX”, 31st EPS Conference on Plasma
Phys. London, 28 June - 2 July 2004 ECA, Vol.28G, P-2.196 (2004)
17. **Gorelenkov, N.N.**, “Resonant kinetic ballooning modes in burning plasma”, in Plasma Physics and
Controlled Fusion (Proc. 32nd European Physical Society Plasma Physics Conference, Tarragona, Spain,
2005) Vol. 29C, P-1.063 (2005).

3 Invited Talks at Major Conferences

1. **Gorelenkov N. N.**, et.al.,
CAE driven by fast particles.
Invited talk at 4th IAEA TCM on fast particles in fusion research, PPPL, Princeton, USA, April (**1995**)
2. **Gorelenkov NN**; Cheng CZ et.al
HINT-F: A 2-D high-n TAE stability code
Invited talk at IAEA TCM, Alpha particle technical committee meeting, Abingdon UK (**1997**)
3. **Gorelenkov NN**
2-D high- n analysis of toroidicity induced Alfvén eigenmodes
Invited talk at International Sherwood Fusion Theory Conference, Madison WI, 2D02 (**1997**)
4. **Gorelenkov N. N.**, et.al.,
Stability properties of Alfvén modes driven by fast particles.
Invited talk at 6th IAEA TCM on fast particles in fusion research, JAERI, Naka, Japan, October 12-14 (**1999**)
5. **Gorelenkov NN**, et.al.
Fast Particle Effects on the Internal Kink, Fishbone and Alfvén Modes.
Invited talk at 18th IAEA conference, Sorrento, Italy, Oct. (**2000**)
6. **Gorelenkov NN**, et.al.
Compressional Alfvén Eigenmode Instability in NSTX
Invited talk at 7th IAEA TCM, Alpha particle technical committee meeting, 2001, Sweden (**2001**).
7. **Gorelenkov NN**, et.al.
Beam ion driven instabilities in NSTX
Invited talk at 45th APS Division of Plasma Physics Meeting Albuquerque, NM (**2003**).
8. **N. N. Gorelenkov**, C. Z. Cheng, V.G. Kiptily, M. J. Mantsinen, S. E. Sharapov, "Fast Ion Effects on Fishbones and $n=1$ Kinks in JET Simulated by a Non-perturbative NOVA-KN Code", IAEA **2004** reported.
9. **Gorelenkov N. N.**, et.al.,
Discrete Compressional Alfvén Eigenmode Spectrum in tokamaks
Invited talk at 9th IAEA TCM on Energetic Particles in Magnetic Confinement Systems, Takayama, Japan, November (**2005**).

4 Unpublished papers

1. Gorelenkov N. N.
Thermonuclear cone instability in a tokamak
Preprint IAE-5139/6 (1990)
2. Budny RV, **Gorelenkov N. N.** *et.al.*
Occurrence of sawteeth in ITER and their effects on alpha particles and stability
Preprint PPPL-3200 (**1996**)
3. **Gorelenkov N. N.**, S. Bernabei, C.Z. Cheng, G.Y. Fu, K. Hill, S. Kaye, G. J. Kramer, Y.Kusama, K.Shinohara, R.Nazikian, T.Ozeki, and W. Park,
Fast particle effects on the internal kink, fishbone and Alfvén modes,
Preprint PPPL-3506 (**2000**)

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