



北京大学数学科学学院  
School of Mathematical Sciences  
Peking University

# ANNUAL REPORT 2021

## 领导致辞 Dean's Message

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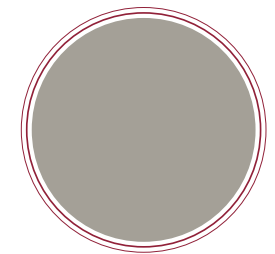
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School of Mathematical  
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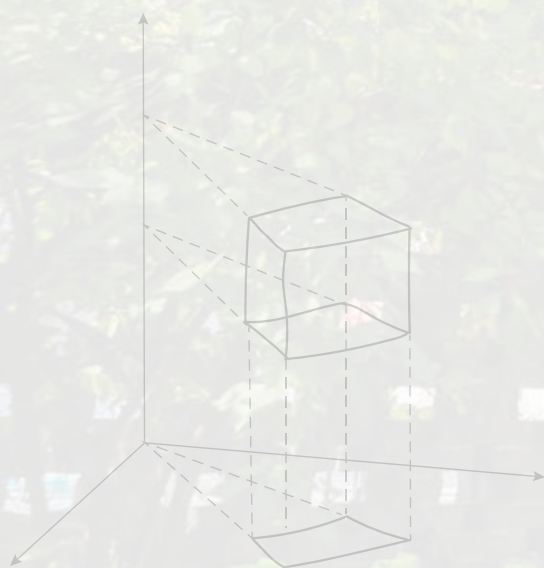
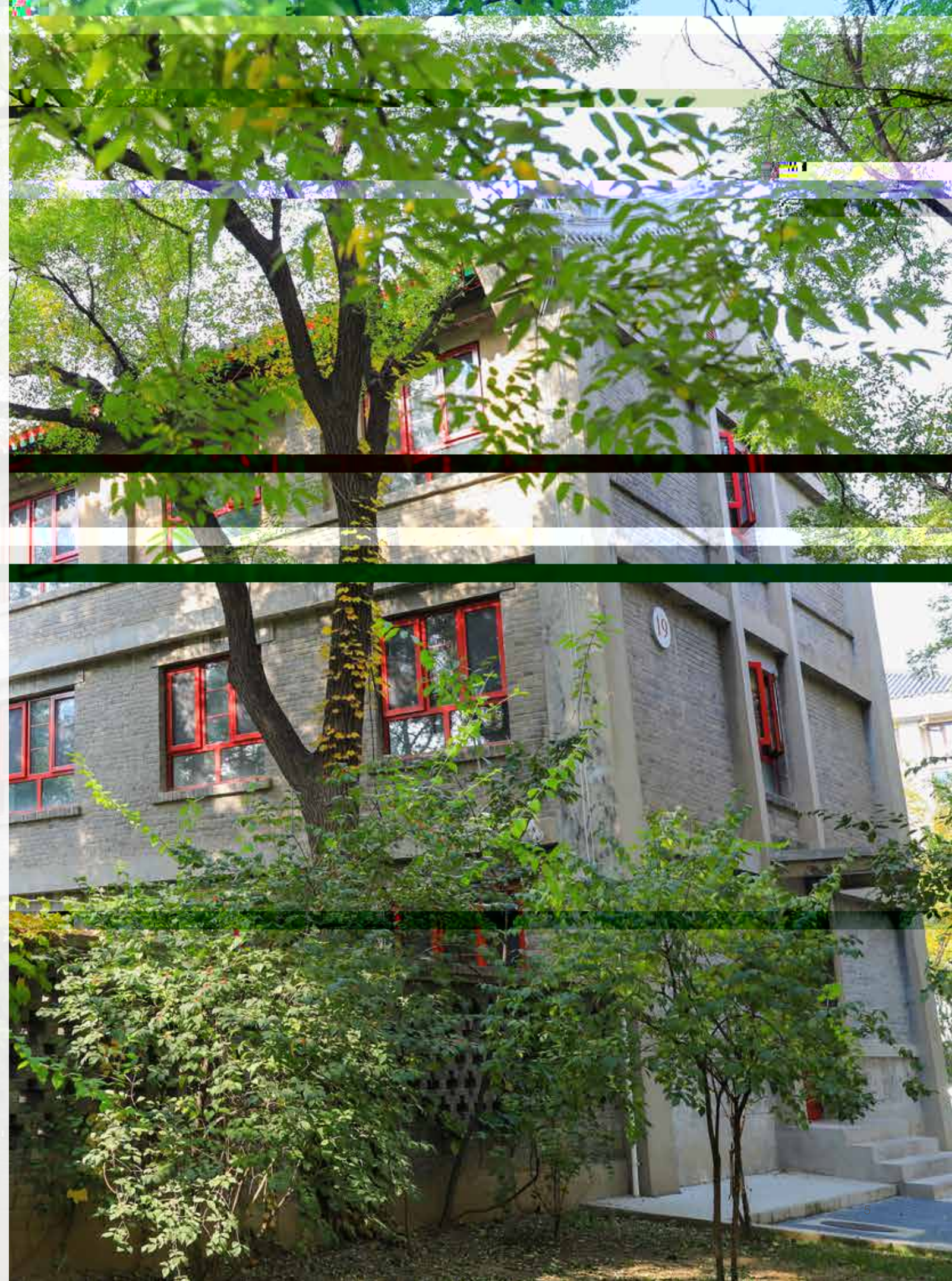
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## 06

Supports

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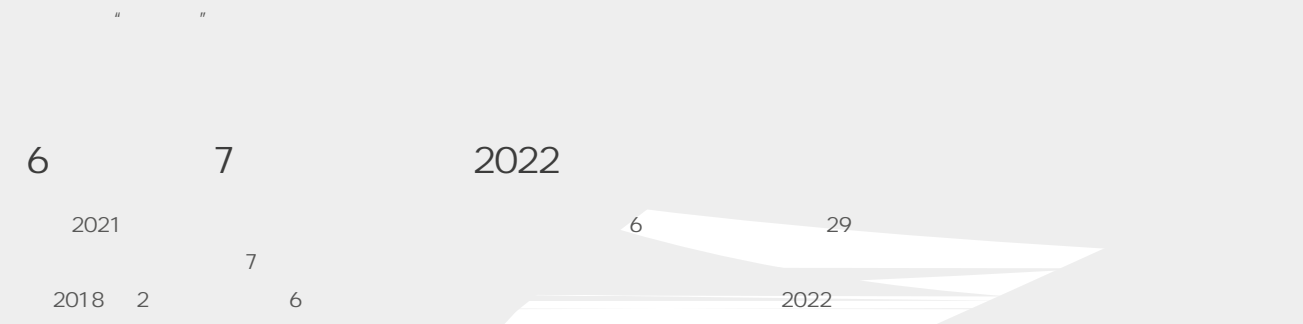
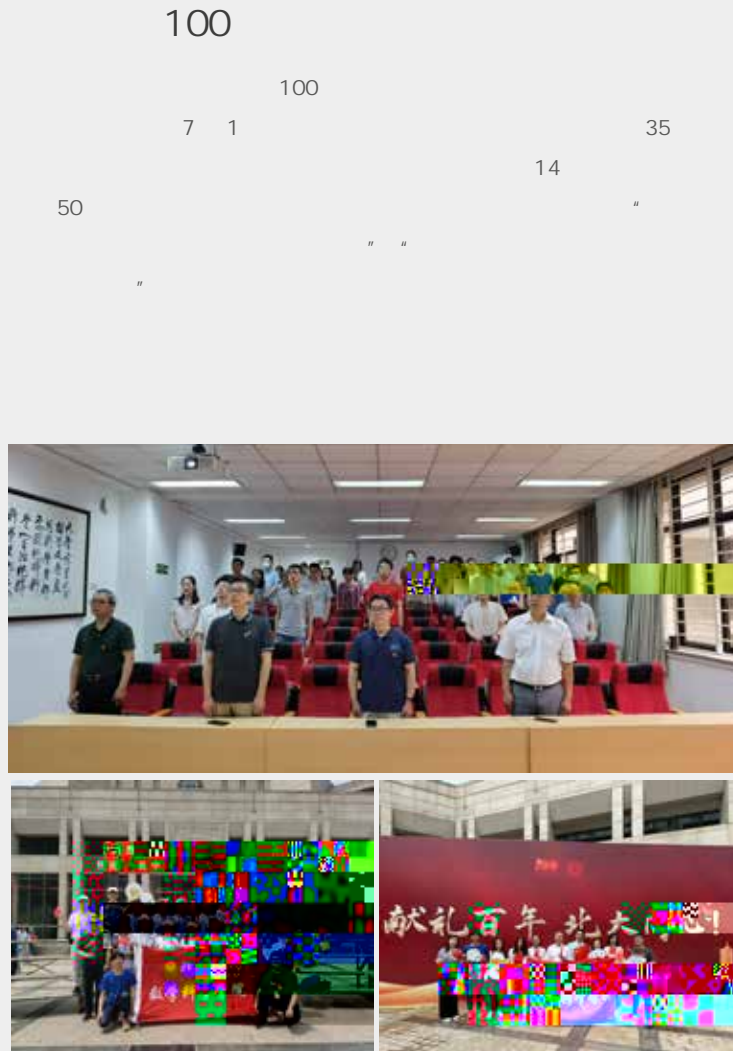
# 01

## Highlights

Annual Report  
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**ICM** INTERNATIONAL CONGRESS  
OF MATHEMATICIANS  
2022 JULY 6-14 SAINT  
PETERSBURG

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$$\cos^2 \alpha + \sin^2 \alpha = 1$$



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# 02

## Honor Roll



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Scholze

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p

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p  
Coleman- Mazur



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$$\cos^2 \alpha + \sin^2 \alpha = 1$$

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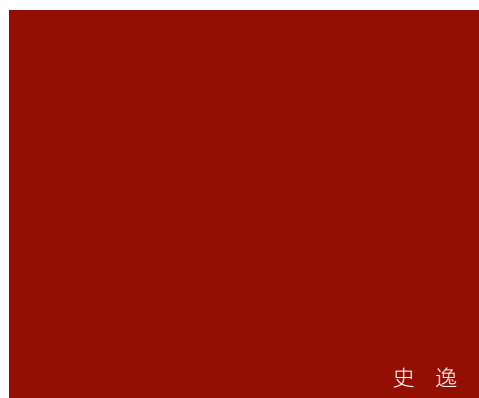
Gordon Bell Prize Finalist



徐晓蒙



阳恩林



史逸



2021

( )

2020

2020

2020

2020—2021

2020—2021

2020—2021

2020—2021

2020—2021

2020—2021

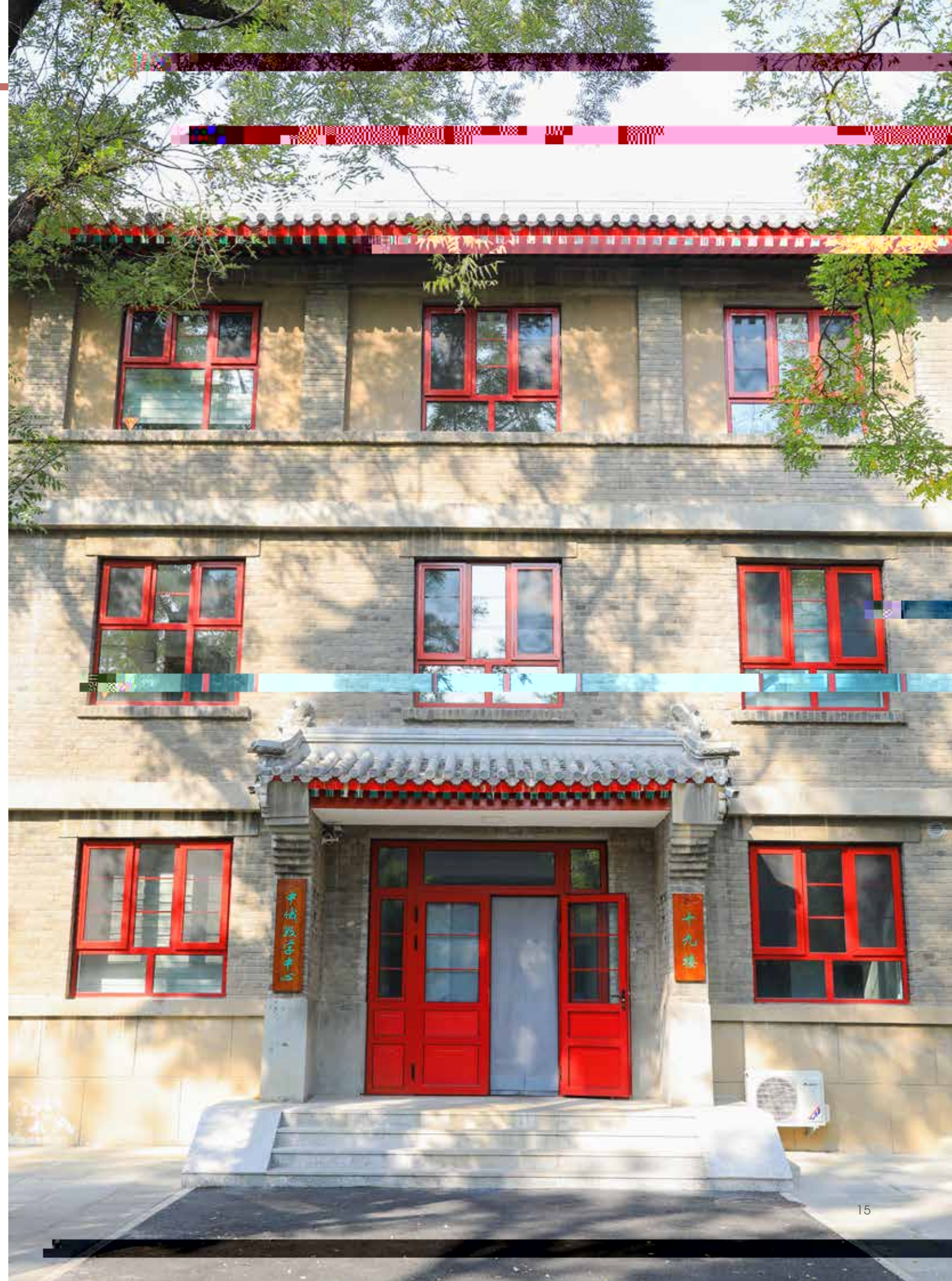
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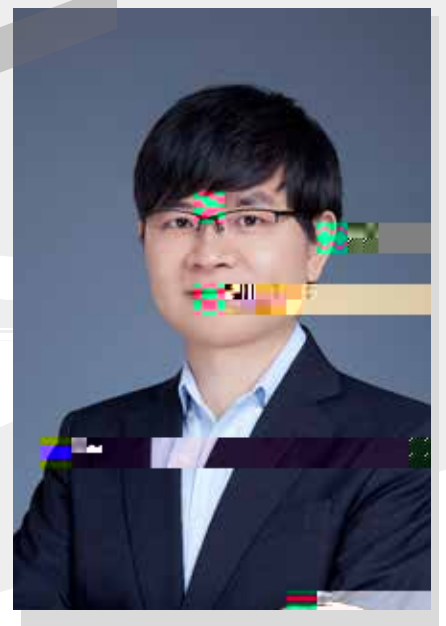
## Faculty



2002 45 2022  
2011  
Collatz  
Kleinman Theodore von Karman SIAM  
ETH Zürich Peter Henrici ACM Gordon  
Bell Prize



2011  
Gilbert Helman  
Rollo Davidson Prize, Alfred P. Sloan  
Fellowship, NSF Career Award 2022  
45 2022 1



2021  
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2%



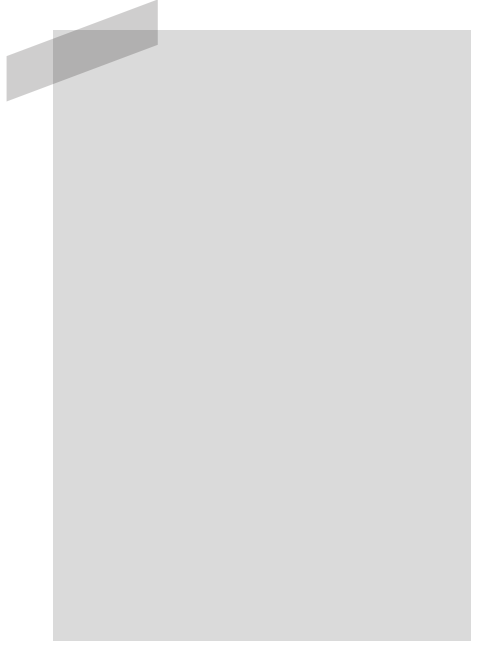
2018  
2018- 2021  
2021 5



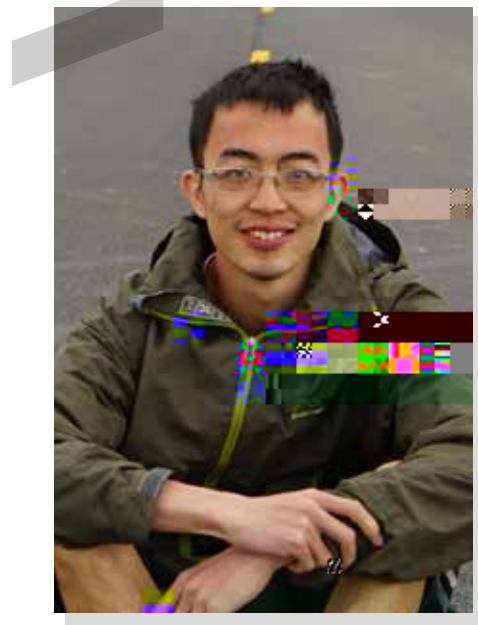


2020 2020- 2021  
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2018 2018- 2021  
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2017 2017- 2019  
2018- 2021  
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TAL

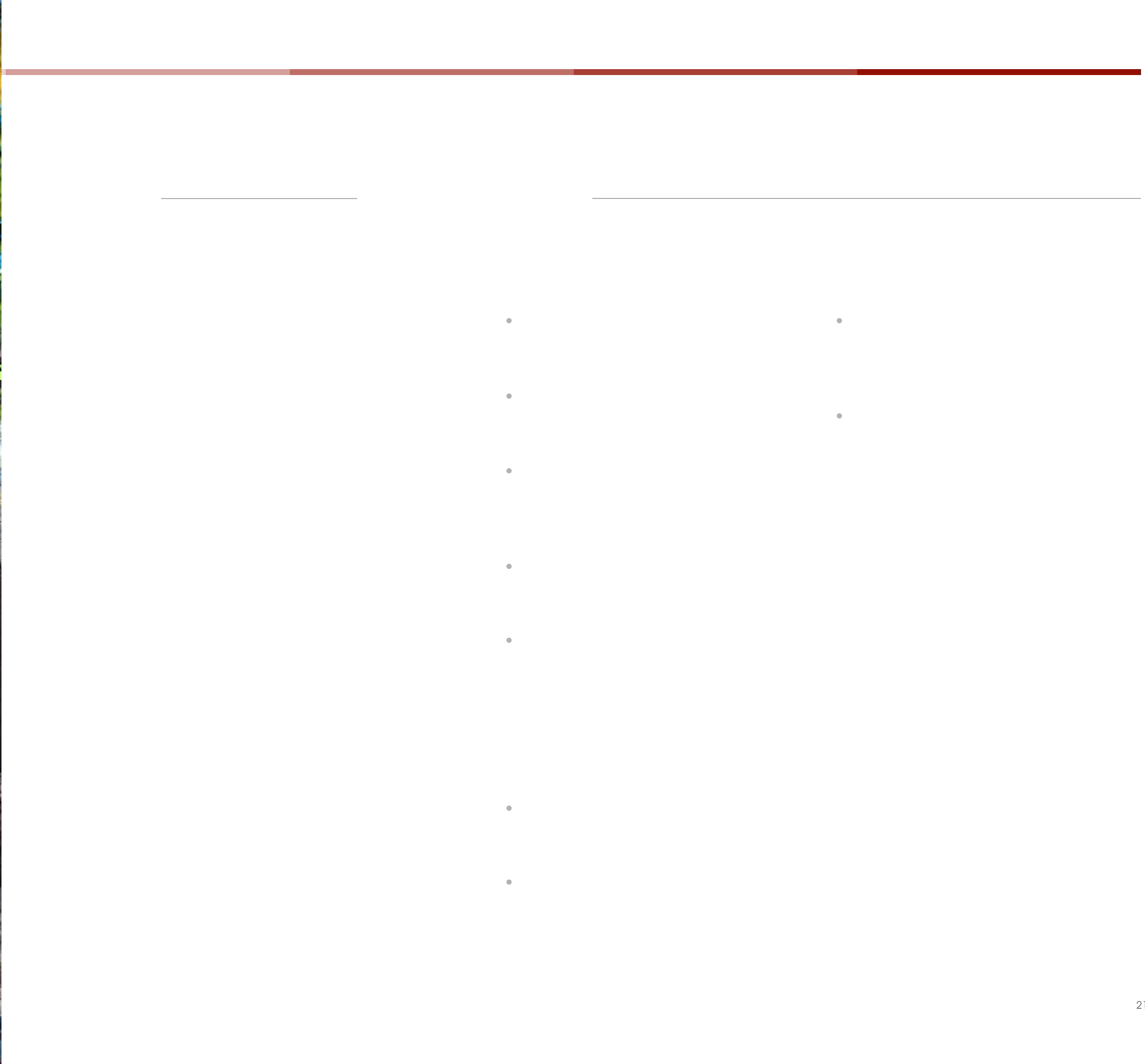


2015 2021 7

2018 2018- 2021  
2021 7 TAL











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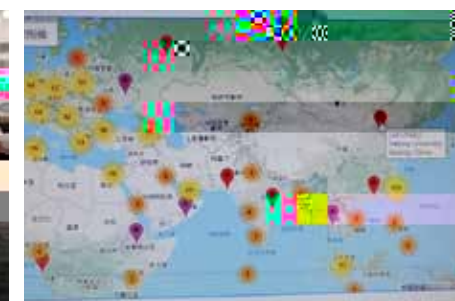
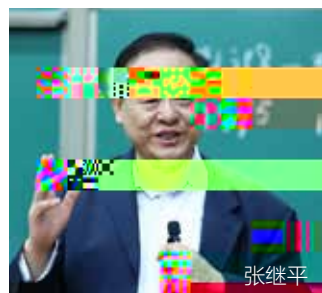
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1			24		B	47		
2			25		B	48		
3			26		B	49		
4		C	27		B	50		
5		C	28		B	51		
6		(B)	29		B	52		
7		(B)	30		II	53		
8		(B)	31		II	54		
9		(B)	32		II	55		
10		(B)	33		II	56		
11		(B)	34		II	57		
12		(B)	35		II	58		
13		(B)	36		II	59		
14		(B)	37		II	60		
15		(B)	38		II	61		
16		(B)	39		II	62		
17		A	40			63		
18		A	41			64		
19		A	42			65		
20		A II	43			66		
21		A II	44			67		
22		A II	45			68		
23		B	46			69		

70			93			116		
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77			100			123		
78			101			124		
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81		II	104			127		
82			105			128		
83		II	106			129		
84			107			130		
85			108			131		
86			109			132		
87		II	110		II	133		
88		II	111			134		
89			112			135		
90		Nijenhuis	113			136		
91			114		II			
92			115					



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1			25		B	49			71			95			118		
2			26		B	50			72			96			119		
3			27		B	51		I	73			97		II	120		
4			28		B	52		III	74			98			121		
5		D	29		B	53		III	75			99			122		II
6		D	30		B	54		III	76			100		II	123		
7		D	31		A	55		III	77			101		I	124		
8		D	32		A	56			78			102			125		
9		D	33		A I	57			79			103			126		
10		C	34		A I	58			80			104			127		
11		C	35		A	59		I	81			105			128		I
12		C	36		A	60			82			106			129		
13		C	37		A	61			83			107		Coxeter	130		
14		C	38		B	62			84			108			131		
15		(C)	39		I	63			85			109	Emanuel G. Scheideg		132		
16		(B)	40		I	64			86			110			133		
17		(B)	41		I	65			87			111			134		
18		(B)	42		I	66			88			112			135		
19		(B)	43		I				89			113		K -	136		
20		(B)	44		I	67			90			114			137		
21		(B)	45		I				91		(B)	115	Dao Van Thinh		138		
22		(B)	46		I	68		(B)	92		I	116			139		
23		(B)	47		I	69			93			117			140		
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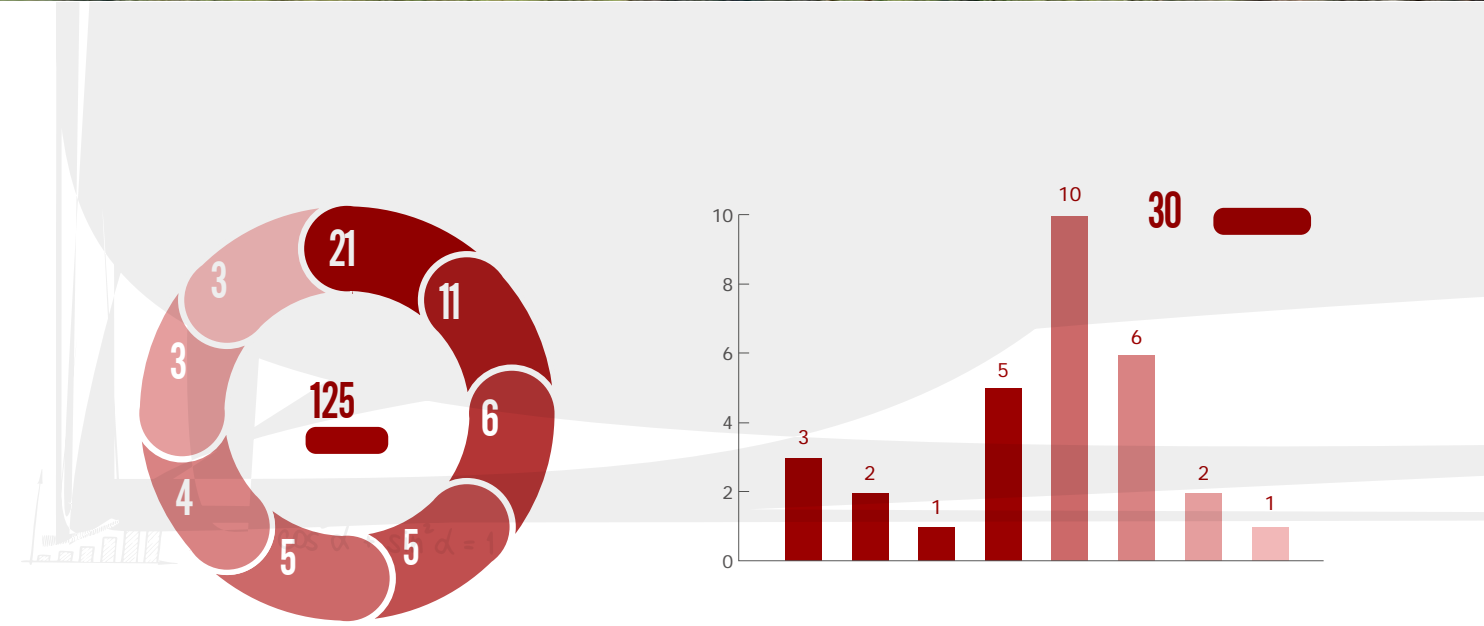
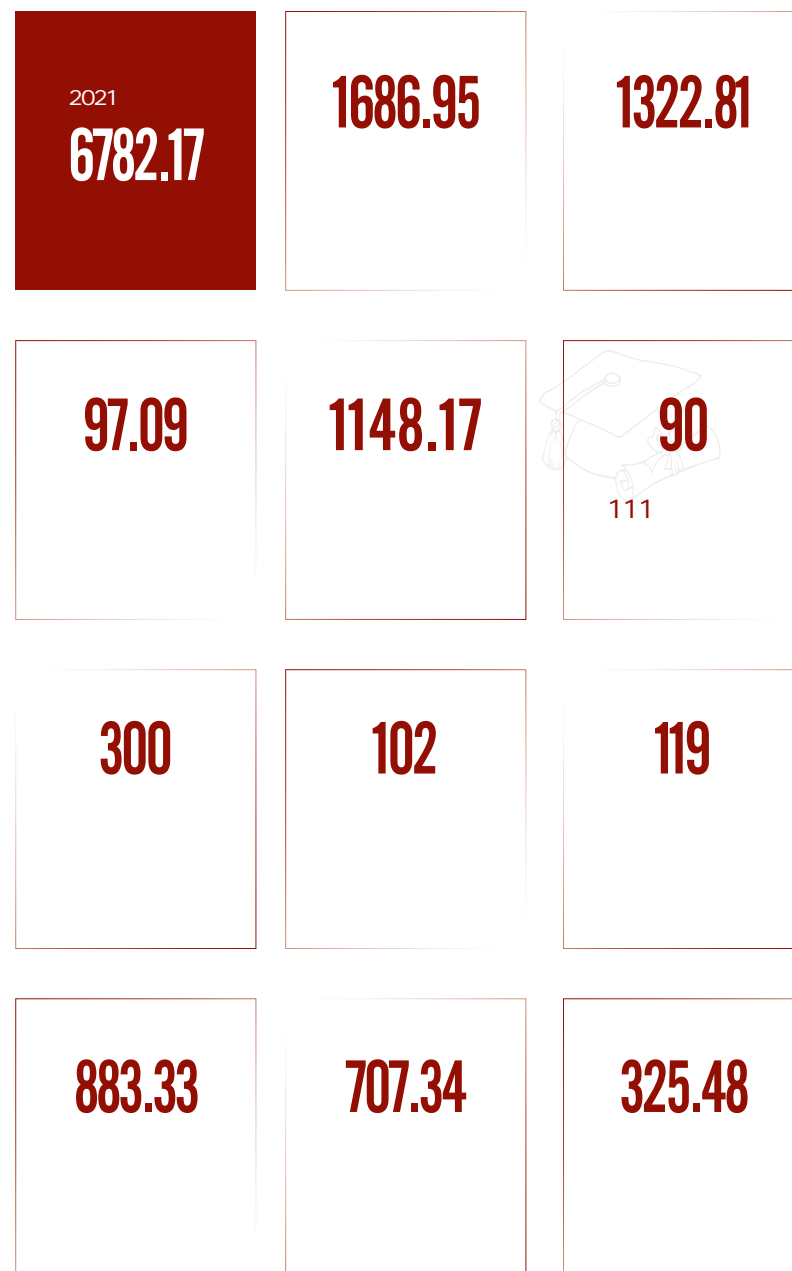


# 05

## Research

Annual Report  
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2021



2021

1		300		2021.12	2026.11
2	S tokens	300		2021.12	2026.11
3	L	300		2021.12	2026.11
4		252		2022.01	2026.12
5	E	252		2022.01	2026.12
6		200		2022.01	2024.12
7	—	74.92		2021.05	2022.12



		( )				
1		395			2020.12	2025.11
2	-	456			2020.12	2023.11
3		93			2020.12	2025.11
4		317.3			2017.01	2021.12
5		660		2030	2019.12	2022.12
6		160		2030	2019.12	2022.12
7		197			2017.01	2021.12
8		250			2018.01	2022.12
9		270			2018.01	2022.12
10		250			2019.01	2023.12
11		270			2020.01	2024.12
12		294			2021.01	2025.12
13		245			2017.01	2021.12
14		245			2018.01	2022.12
15		245			2019.01	2023.12
16		245			2019.01	2023.12
17		280			2021.01	2025.12
18		130			2019.01	2021.12

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19		130			2019.01	2021.12
20	Langlands	120			2020.01	2022.12
21		175		( )	2019.10	2022.09
22		150		( )	2021.01	2023.12
23		62.58			2021.01	2023.12
24		100		-	2018.11	2021.12
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26		74.92			2021.05	2022.12
27	AI	600			2019.09	2020.08
28		1500			2019.06	2022.06
29	* - *	1000			2019.12	2024.12
30	* - Fintech *	1000			2019.12	2022.12
31	-	1000			2019.08	2024.08
32	-	1000			2019.01	2024.09
33	* - *	1000			2020.05	2025.05
34		2000			2021.05	2026.05



- **An, Jinpeng**  
*Advances in Mathematics*
- **Guo, Shuai**  
*Annals of Mathematics*
- **Guo, Shuai**  
*N-mixed-spin-P fields, Geometry & Topology*
- **Shi, Yuguang**  
*Communications on Pure and Applied Mathematics*
- **Wang, Baoxiang**  
*Annales de l'Institut Henri Poincare-Analyse Non Lineaire*
- **Wei, Dongyi**  
*Annals of Probability*
- **Fu, Jingxue; Wu, Lan**  
*Finance Research Letters*
- **Shi, Yi**  
*Transactions of the American Mathematical Society*
- **Hu, Jun; Liang, Yizhou**  
*Mathematics of Computation*
- **Yang, Enlin**  
*Advances in Mathematics*
- **Zheng, Hao**  
*Communications in Mathematical Physics*
- **Zhou, Bin**  
*Annals of Partial Differential Equations*

- **Li, Dingquan** **Jiang, Ming**  
*International Journal of Computer Vision*
- **Li, Ruo** **Zheng, Lingchao**  
*SIAM Journal on Applied Mathematics*
- **Li, Tao** **Ma, Jinwen**  
*Neurocomputing*
- **Geng, Zhi**  
*Statistics in Medicine*
- **Yao, Fang**  
*Biometrika*
- **Zhang, Ruixun**  
*heuristics and finite memory, iScience*
- **Ren, Yan-Xia**  
*Stochastic Processes and Their Applications*
- **Shen, Shunlin** **T<sup>2</sup>**  
*Journal of Functional Analysis*
- **Zhang, Zhifei**  
*Advances in Mathematics*
- **Zhu, Xiaohua**  
*Advances in Mathematics*
- **Zhang, Pingwen**  
*Acta Numerica*
- **Zhang, Zhifei** **C<sup>∞</sup>**  
*Annales de l'Institut Henri Poincare-Analyse Non Lineaire*
- **Wei, Dongyi** **R**  
*Annals of Partial Differential Equations*
- **Wei, Dongyi**  
*System with large Maxwell field, Communications in Mathematical Physics*
- **Wu, Yan** **Deng, Minghua**  
*Nature Communications*
- **Xia, Mingtao; Shao, Sihong**  
*SIAM Journal on Scientific Computing*
- **Yang, Chao**  
*Networking, Storage and Analysis: Science and Beyond*

- **Ma, Xiang**  
*classification, Advances in Mathematics*
- **Chen, Song Xi**  
*Proceedings of the Royal Society A-Mathematical Physical and Engineering Sciences*
- **Yang, Qi; Zong, Chuanming**, Characterization of the two-dimensional fivefold translative tiles, *Bulletin de la Societe Mathematique de France*
- **Zhang, Zhihua**  
*Journal of Machine Learning Research*
- **Yin, Jianyuan** **Zhang, Pingwen**  
*National Academy of Sciences of the United States of America*
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2021 32 1 \* \* 7 \* \*  
 47 8 1 2 PDE 2  
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01.14- 12.02	Beijing- Saint Petersburg Mathematics Colloquium (online)	100
01.15- 12.03	Beijing- Moscow Mathematics Colloquium (online)	100
01.21- 12.02	Beijing- Novosibirsk seminar on geometry and mathematical physics online seminar	100
04.24	2021 PKU- POSTECH SIAM Student Forum (Online)	50
05.06		30
07.07	Geometric analysis and nonlinear PDE	40
07.12- 08.06	2021 * *	80
09.10- 09.12		30
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Eric Tchetgen Tchetgen

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14	2	304	8	4	2
				Dan Ciubotaru	
				" Cocenters of $p$ -adic Groups, III: Elliptic and Rigid Cocenters",	
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	127	53	2	37	



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	286	68								99
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4	37			30
		26		

